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ABSTRACT

The purpose of this study is to explore the importance and the feasibility of providing guidance, counseling, and other pupil personnel services in experimental Employer-Based Career Education programs, as part of a larger set of studies useful for those who will plan or operate such programs. The five chapters cover: (1) a definition and description of pupil personnel services, their functions, and possible model configurations, (2) guidance and counseling, including a feasibility analysis of alternative models for Employer-Based Career Education programs, (3) work experience and work study programs, (4) diagnostic and special education services, and (5) other pupil personnel services. Problems and parameters that must be taken into consideration when establishing these personnel services are discussed. Working diagrams are included. (Author/AG)

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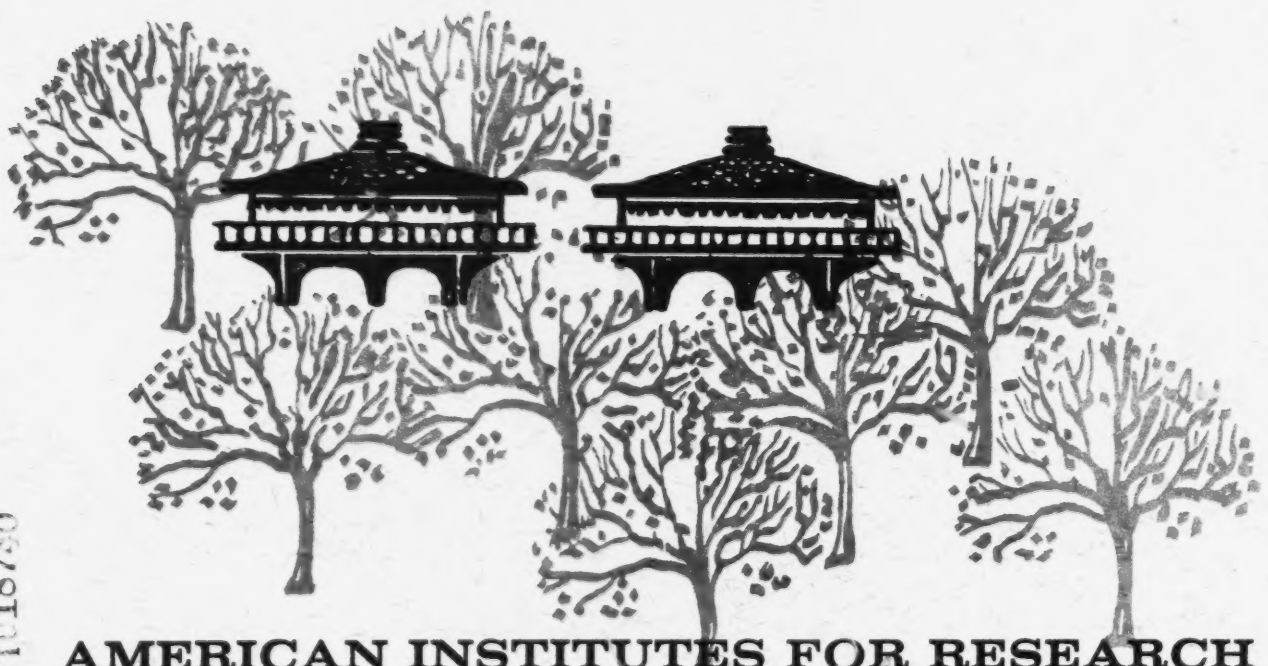

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Feasibility of Guidance, Counseling, and Pupil Personnel Services in Employer-Based Career Education

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June 1972

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Chapter I : INTRODUCTION

PUPIL PERSONNEL SERVICES

Types of Services

Pupil personnel services are those services provided by schools which are intended to provide special support to the child in the pursuit of his education. Historically they have been viewed as adjunct services which were intended to support the prime purpose of the educational establishment which is to educate the child. Seven major types of pupil personnel services are, and traditionally have been, provided:

Guidance and Counseling

Psychological Services	Speech and Hearing Services
Special Education	Health and Dietetic Services
School Social Work	Attendance and Pupil Accounting Services

History of Pupil Personnel Services

The earliest elements of pupil personnel service in this country are a little over one hundred years old. The first compulsory school attendance laws were passed in 1852. Since that time, attendance and pupil accounting services have been part of pupil education.

Perhaps the second oldest element of special services to school children are psychological services. Although the first psychological assessment laboratory was established in 1884 by Galton in London, the beginning of school psychological services in the United States is usually associated with the

clinic established in 1893 at the University of Pennsylvania by Lightner Witmer. Witmer's clinic was established to serve children who were referred by the Philadelphia public schools because they were manifesting learning disabilities. (Dunn, 1965, 1971)

The first known special education class for antisocial students (i.e., juvenile delinquents) was established in 1871 in New Haven, Connecticut. Similar classes were started in eastern schools in the late 1880's and early 1890's. The first comprehensive department of child study established and operated by a public school system was established in 1899 in Chicago, where formal school social work was instituted a few years later.

Guidance and counseling is one of the largest of the pupil personnel services, perhaps because of its generally lesser certification requirements. There are an estimated 50,000 full-time-equivalent counselors in the United States today. Their functions vary widely, however, from personal and social development counseling to academic counseling to vocational guidance to group testing and to behavior modification and classroom discipline activities. The definition of guidance counseling services varies markedly from school system to school system and from one geographical region to another.

Vocational guidance as we know it today is due directly to the pioneer work of Frank Parsons in 1909. In addition to coining the term "vocational guidance," and introducing vocational guidance into the public schools, Parsons was also the first to formulate a systematic theory of vocational counseling.

As early as 1925 Koos and Kefauver argued that guidance had developed to the point that it actually had two discrete functions: one, an adjustive (i.e., problem-oriented) function and the other a distributive (i.e., an informational) function. By 1956, McDaniel argued that guidance involved still a third function, namely an adaptive function whereby guidance assumed

responsibility for assisting schools continually to adapt courses, procedures, and activities to the needs of students. (Dunn, 1969, 1970)

Typical Pattern of Pupil Personnel Services

As may be expected, there are many different combinations and permutations of pupil personnel services available in public schools today. There is some underlying similarity in their organization and structure, however, in spite of the complexity with which they are often administered. In brief, pupil personnel services in schools are typically supernumerary services which exist alongside of, but separate from, the main teaching effort of the school. That is, the basic foundation of the public school system is the classroom, the classroom teacher, and academic instruction. To the extent that students are having difficulty 1) with their learning, 2) in adjusting to the rules, regulations, and requirements of classroom existence, or (3) are unsure with regard to where they are heading, either vocationally or academically, pupil personnel services are brought into play. (Dunn, 1967a; 1967b)

With the exception of the routinized services of academic counseling and high school scheduling, pupil personnel services are typically brought into play by an explicit decision process. Teachers generally make the initial decision to seek special help for a student. This decision is then usually reviewed by, and if judged warranted, supported by someone representing building administration, such as the principal, and a formal request for services is made. In major high schools the counselor often fills this role and thus serves an intermediate function between teacher and school administration.

In brief, then, the pupil personnel service system, as it is established in American Schools, depends on overt referral processes. Figure 1-1 codifies

a typical decision paradigm. At times the referral process may be a self-referral process, as in the case of a student requesting to see his counselor.

While the existence of pupil personnel services as an adjunct service apart from the regular instructional program of a school often results in delay in seeing the referred child, difficulties in administration and coordination of recommended treatment programs, and the like, it does, however, permit system-wide services to be offered at a consequently greater level of technical specialization on the part of pupil personnel service staff.

The question of how pupil personnel services might be structured for career education depends, of course, on the organizational configuration of the career education model under consideration.

The Functions of Pupil Personnel Services

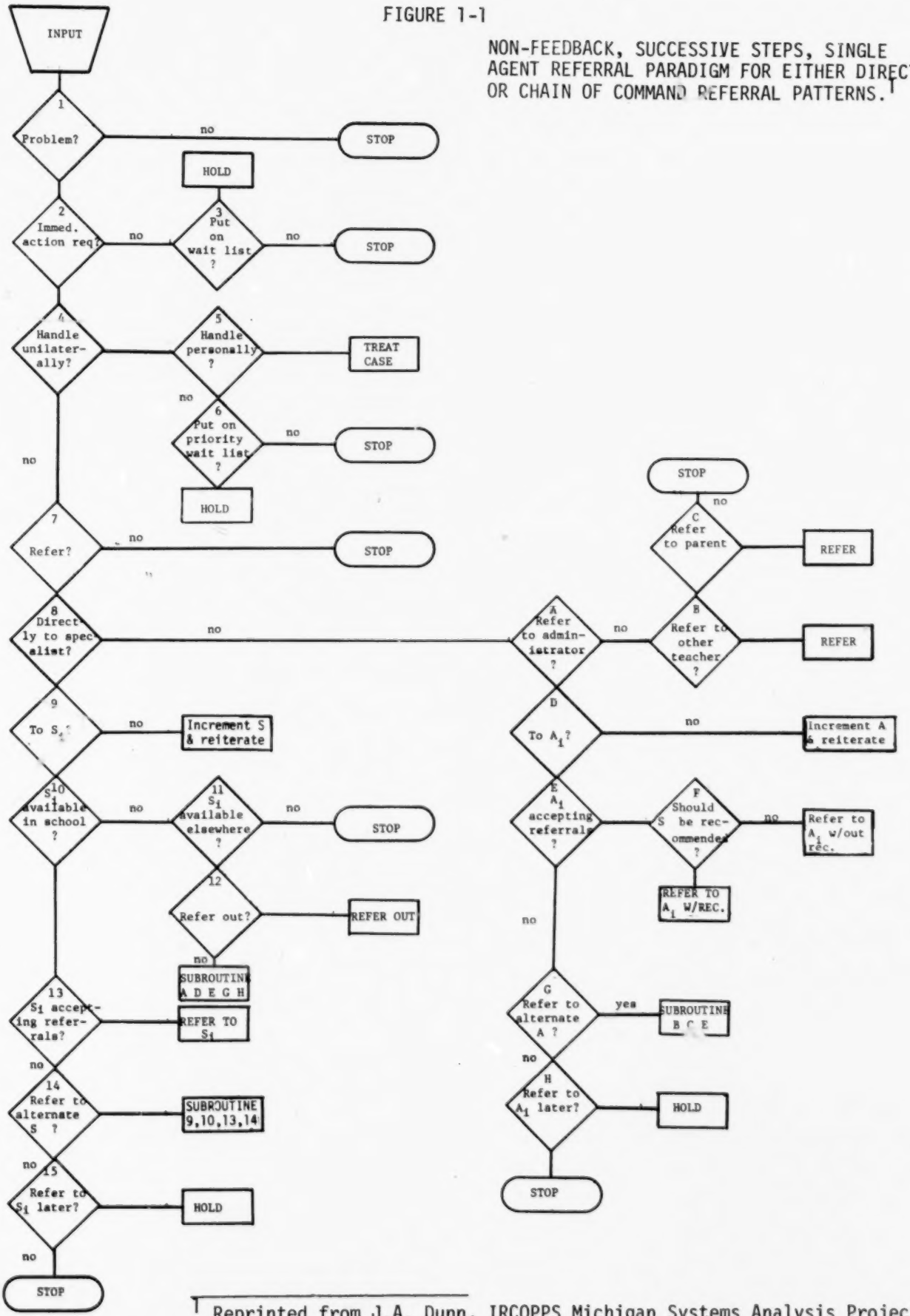
Pupil personnel services may be considered not only in terms of the professional disciplines on which they have been based, but also in terms of their general purpose. There are those services aimed at:

1. providing general assistance to all children in the system (these typically have been general counseling and guidance, group testing, and record keeping services);
2. providing special remedial and/or supportive efforts for select sub-groups of children (these are typically the clinical services of special education);
3. providing general health and dietetic services; and
4. providing those services concerned primarily with general school administration and management (such as pupil accounting, transportation, discipline, and the like).

In the past, as schools moved more and more toward the goal of universal education, it was discovered that:

FIGURE 1-1

NON-FEEDBACK, SUCCESSIVE STEPS, SINGLE AGENT REFERRAL PARADIGM FOR EITHER DIRECT OR CHAIN OF COMMAND REFERRAL PATTERNS.[1]



[1] Reprinted from J.A. Dunn, IRCOPPS Michigan Systems Analysis Project, 2/1/66

1. all children had to be accounted for continuously.
   a. Pupil accounting to parents (schools acting in loco parentis)
   b. Pupil accounting to society (state reimbursement and the courts)
2. large groups of children had handicaps which interfered with their education (and/or the education of others) and had to be diagnosed and accommodated.
   a. Mental, physical, social, and emotional handicaps
3. large groups of children had sociological barriers to their education.
   a. Some children had unmet basic needs (food, clothing, and shelter).
   b. Some children were home bound and/or institutionalized and had to receive their education in other than the regular school setting.
      i. Hospitalized, invalided, and/or quarantined children
      ii. Incarcerated and/or physically detained children
      iii. Regionally remote children (bussing programs and school broadcast programs, e.g., Appalachia and Australia)
4. the educational system often needed special information (interests, values, achievement, abilities, etc.).
5. children often needed information and help of a type not generally provided in traditional academic programs.
   a. Help in personal goal formulation, planning, self-motivation, study skills, and the like
   b. Orientation to the operational requirements of educational system in which they are imbedded
   c. Information regarding the nature of the world of work, job opportunities, and the requisite skills necessary for success in those opportunities

d. Knowledge of oneself, especially in relation to strengths and weaknesses as they pertain to the definition and formulation of long range goals, planning, and the like

e. Information and assistance in making the transition from the school environment to society, especially as it pertains to military obligations, citizenship responsibilities, and employment and college opportunities.

PURPOSE OF THIS STUDY

The purpose of this study is to explore the importance and the feasibility of providing guidance, counseling, and other pupil personnel services in experimental Employer Based Career Education programs. It is expected that this study will be of use to those persons considering operating such a program, and to those persons actually planning such programs. This study is part of a larger set of studies being prepared by the Far West Laboratory for Educational Research and Development.

This report is organized into five chapters. Chapter I provides an introduction to the problem; defines pupil personnel services and the problems they address; and then discusses possible model configurations. Chapter II deals with guidance and counseling. Chapter III treats the coordination of work and study. In regard to Chapter III, given that one of the tenets of an Employer Based Career Education (EBCE) program is that education must be functionally relevant and take place in a meaningful context, i.e., in a "real-life" setting, then the selection of the material to be learned, and the coordination of the functional contexts in which it is learned, become very central problems. Chapter IV deals with diagnostic and special education services. An educational system which is to be developed to serve the broad spectrum of

American youth must take into consideration the fact that there are children who have learning difficulties, children who have difficulties in managing themselves in social situations, children who have physical problems, children who have emotional problems, and the like. Chapter IV discusses the identification of special problems impeding a child's progress toward his career goals, and the development, prescription, and supervision of those special education services needed to assist the child in the pursuit of his goals. Finally, Chapter V covers the balance of those other pupil personnel services which are also essential to the operation of educational programs but which are somewhat less conspicuous in education programs in general and in EBCE in particular.

POSSIBLE EBCE CONFIGURATIONS

It is the goal of EBCE to meet a number of student needs implicit in the previously described aims of pupil personnel services. The goal of meeting these needs may be addressed through counseling and guidance services, work experience coordination, diagnostic and special education services, and other pupil personnel services. The provision of these services can be accomplished through a variety of organizational/administrative settings. These configurations of EBCE programs will be referred to here as macromodels, i.e., general configurations which might be adopted by various programs committed to EBCE.

There are many dimensions that may vary in the design of macromodels, but for the sake of brevity only five major dimensions will be explored here:

1. *Number of employers involved in running the EBCE program.* An EBCE program clearly could be run by a single large employer such as General Motors, General Electric, or IBM. In the early stages,

however, it is much more probable that EBCE will be run by a consortium of industries operating cooperatively as a single entity.

2. *The number of agents providing the service within EBCE.* Either a single employer or a multiple employer consortium, operating as a legal entity, could opt to conduct the entire EBCE program itself, that is, retain all of the necessary employees to conduct EBCE. On the other hand, the employer (or consortium) may indeed go so far as to be a coordinating agency only and subcontract a large part or even all of the requisite services to service subcontractors.
3. *The centralization of the educational facilities.* EBCE could conduct its operation with students localized in a variety of physical job settings, or it could use a central facility part of the time, with students distributed to local sites for special training either on a split day basis, an alternating day basis, an alternate week basis, or other arrangement.
4. *The degree of the physical concentration of the student body.* This dimension is concerned with whether or not the students are physically concentrated in a single area such as within a large plant site, large training complex, or the like, or dispersed geographically across a variety of sites throughout the city.
5. *The number of students involved.* A fifth important dimension would, of course, also be the size of the operation, that is the number of students being trained in EBCE, or the number of programs and options available to students in the EBCE program.

How pupil personnel services can be configured for EBCE will be a function of the nature of the macromodel adopted. Different configurations of the EBCE would impose different conditions for the organization, structure, and administration of pupil personnel services.

It is likely, however, that in the early stages of EBCE, the prominent macromodel will be one of the consortium of employers training, with the assistance of subcontractors, a modest number of students who are distributed across the city. The major variable probably will be whether all or most instruction takes place at the local training site where the student is working, or whether there is some central facility to which large numbers of students go on a regular basis.

The balance of this paper discusses possibilities for various major pupil personnel services.

Chapter II : COUNSELING AND GUIDANCE SERVICES

CHANGES IN COUNSELING AND GUIDANCE

Traditionally, counseling and guidance services involved counselor interactions on a one-to-one basis with students in the counselor's office. Most of the counselor's time was spent on either arranging or adapting students' course schedules or dealing with their most urgent problems, such as those related to discipline. In the past few years, counseling both literally and figuratively has broken out of this crisis-oriented position. Now counselors are becoming more involved with developmental guidance efforts, rather than just problem solving. Shoben (1965) cites the chief aim of counseling as providing developmental experience. Tiedeman and Field propose that the purpose of guidance is to develop purposeful action in the student. (Katz, 1969).

The role of the counselor himself is also changing. Boy (1969) suggests a sociological view of the counselor's role, whereby he focuses his attention on the social environment of the school as a whole, rather than dealing with individual students one at a time. The role of counselor as ombudsman, with dual allegiance to the students and the school, has been proposed by Ciavarella and Doolittle (1970). Also, counselors are now playing a more active role in educational programs, often working with teachers to effect guidance through the students' in-class activities. As a result of these developments, counselors are spending more time "where the action is," and less time in their offices. One effect of this trend has been to minimize the distinction between counseling and guidance and education activities.

EBCE may wish to pursue this trend, with counseling and guidance being closely integrated with the academic and work-study aspects of a student's program. Certain functions traditionally the domain of the guidance counselor will be dealt with elsewhere: course selection and scheduling will be the concern of those responsible for the generation of individual programs of study; discipline will be dealt with by those concerned with other, miscellaneous, pupil personnel services. The information dispensing function of counseling and guidance will be effected through the students' curriculum; that is, information about various vocational options will be conveyed through the academic and work-study components of the students' programs. The function of the counselor, then, will be to deal with matters in which special assistance will be required. (Note: the term "counselor" will be used to refer to the agent, be he counselor, teacher, supervisor, or whoever provides this assistance.)

Specifically, the counseling and guidance program in EBCE will be concerned with three major types of service:

1. providing assistance to students, either individually or in groups, regarding specific problems or needs (e.g., personal/social development activities);
2. providing consultation to teachers and supervisors; and
3. providing consultation to curriculum specialists.

The following sections will more thoroughly define the problem area of counseling and guidance within EBCE, briefly review the types of guidance programs presently being conducted in regular schools, and propose and discuss alternative models for the provision of guidance services within EBCE.

DEFINITION OF THE PROBLEM AREA

The primary function of counseling and guidance is to assist students, teachers, and other school personnel to learn how to identify and resolve their problems. A problem may be viewed as a discrepancy between where or what the client (student, teacher, or supervisor) is and where or what he would like to be. Thus, of necessity, problems must be defined individually for each client. The counselor's role is more one of facilitator than of actual problem-solver; his objective should be to "increase self-responsibility and increase maturity in decision-making" on the part of the client (Wrenn, 1962). A similar, though somewhat more existential view is taken by Tiedeman who sees the counselor's task as one of developing a "sense of agency" in the students.

One major effort of counseling and guidance services in EBCE, then, should be to develop problem-solving skills in the client. Basically, this involves two processes: identifying the problem and identifying a solution. The first process is essentially determining one's objectives or goals as a prelude to planning and accomplishing change, by asking "Who am I? What do I want to become? What is the nature of the discrepancy between these two states?" (Katz, 1969). This needs assessment can be done on an individual basis, to identify special needs of students or teachers; it can also be done on a general basis, to identify needs of groups of individuals.

Effective guidance requires that the needs being dealt with are in fact perceived as needs by the client. Often guidance programs are designed by adults who believe they know what students need, but there is no evidence suggesting that students agree with those perceptions. In fact, Project TALENT data revealed that most students felt that their high school guidance programs did not meet their needs (Flanagan, 1969). Jones, et al (1971) assert that any program attempting to cultivate the potentialities of individual students must

actively involve youth in the assessment of their needs. "First, most youth possess some information about what their needs are and this information can be valuable for the individualization process; second, even if they cannot contribute much to needs assessment activities, young persons' dignity will be enhanced and their later cooperation will be more likely if they have been honestly permitted a role in these activities." It is unlikely that counseling will be very effective if the student does not want to be counseled--in other words, if he does not see the counseling as meeting some need.

The second process in problem solving, identifying a solution, involves both identifying alternative courses of action that would resolve the problem and also evaluating and selecting the "best" action. Once again, the counselor should not select the solution himself, but rather assist the student in making this selection. If the student selects the solution which he feels is most appropriate, he is more likely to actually carry it out.

The underlying theoretical framework for counseling and guidance, then, is one of developing client responsibility, rather than counselor responsibility, for the attainment of the counseling outcomes. The client must agree to, as well as be a party to, any decisions about what he needs or what he should do--and he must bear the consequences of his decisions. By being required to take responsibility for his actions and his development, the client is more likely to be concerned with the process of his development and to take an active role in shaping his life, rather than leaving decisions and responsibility with teachers, counselors, and others.

Specific Domains of Counseling and Guidance in EBCE

The following paragraphs outline specific problem areas within each of the three domains of counseling and guidance services. It should be noted that the individual problem areas are not mutually independent; for example, the

formulation of personal and social goals is likely to be closely related to the resolution of personal and social needs. Counselors in EBCE should be prepared to deal with these areas in their work.

Providing Assistance to Students. This area is likely to comprise the majority of the counselors' activities. Counselors will be expected to provide assistance to students in a variety of different areas. In the Far West Laboratories model for EBCE, for instance, counselors should be prepared to give assistance in all four of the basic domain areas.

Assisting students in their personal and social development requires that the students first of all have a good understanding of themselves. The counselor should assist the student 1) to identify his strengths and weaknesses; 2) to be aware of his attitudes, opinions, and values and how they influence his actions; 3) to understand how his behavior creates certain situations and how he reacts to these gestalts he creates; 4) to be aware of his interests and goals; and, finally, 5) to recognize potential conflicts between his abilities, interests, values, goals, and so forth. This self-understanding is seen not as an instrument of guidance which will automatically produce certain changes in the individual's behavior (the "Aha!" phenomenon) but rather as a necessary goal of guidance enabling the student to answer the question "Who am I?"

Assisting students in this self-exploration activity will require a variety of skills on the part of the counselor. He must be able to interpret test data to give students a practical understanding of the results of tests of abilities and interests that they take. He must be aware of and be able to use a variety of techniques or instruments assisting students in self-understanding, such as games (e.g., the Life-Career Game, or SIGI, a computerized decision-making game in which students are assisted to explore their values), and various modes of group work such as T-groups, sensitivity groups, or encounter

groups. He must be able to perceive and communicate relationships between students' behavior and their feelings, and between their behavior and its consequences.

A second aspect of the facilitation of students' personal and social development is assisting them to develop self-management skills. This will be particularly important in EBCE where students will have access to a variety of experiences and will be expected, particularly in work (job) settings, to be responsible for their actions.

Assisting students to improve their study skills is an example of an effort to enhance students' skills in self-management. Other areas which should be dealt with are students' motivation to accomplish tasks (including job tasks and home tasks, as well as school tasks), skills in planning which will assist students to accomplish the tasks they have set for themselves, and the self-discipline required to accomplish tasks.

Counselors should be familiar with various approaches to the problem of facilitating self-management, such as the use of incentives (including the setting of incentives by the student as well as for the student), methods of restructuring the environment to eliminate distractions and make it more conducive to task completion, and so forth. Again, the emphasis should be on self-management techniques which the student can effect, rather than on techniques which the counselor must utilize.

A third aspect of personal and social development is assisting students to formulate goals. This is a necessary part of any educational program which tries to provide each student with a program of study which is designed to meet his own, individual needs. In EBCE, goals are defined as "life-goals," the aspirations one holds for what his life as a whole should be, now as well as in the future. This definition includes not only educational and vocational

goals but also avocational and personal/social goals. The role of the counselor in the process of goal formulation is to assist students to explore various goals and to consider the consequences of each for the student's life as a whole, and for the opportunity to realize other goals he has set. The procedures involved in assisting students to formulate their goals are dealt with at length in the study on Individualization of Education in EBCE.

Providing Consultation to Teachers and Supervisors. There are two main areas in which the counselor works with teachers or supervisors: co-counseling and teacher or supervisor training. In the first area, the counselor works with the teacher or supervisor in assisting students to resolve problems relating to class or work situations. Since the teacher and supervisor have much more contact with the students, and see them in the context in which many of the students' problems arise, they are much better able to provide reinforcement or guidance than the counselor, who is not likely to be present at the time he could be most helpful. This function of the counselor parallels some of the tasks of the work-study coordination, a role which may in fact be filled by counseling personnel. This role is described in more detail in the part of this study relating to work-study coordination.

Because of their specialized training in guidance techniques, and because of the need for teachers and supervisors to be able to provide guidance in the classroom and on the job, counselors may be asked to train the teachers and work-supervisors in basic guidance skills. This training may involve general instruction in such matters as group dynamics, or it may involve assisting the teachers and supervisors to develop particular skills. Skill areas which might be dealt with include communication skills, behavior modification techniques such as reinforcement and contingency management, and techniques for group instruction. In addition, counselors may be involved in more general

instructional efforts, such as assisting teachers and supervisors to implement programs for drug or sex education. Finally, counselors may actually counsel teachers on problems relating to their teaching, such as their attitudes toward drugs or their reactions to minority group students.

Providing Consultation to Curriculum Specialists. Counselors in EBCE probably will not be responsible for dispensing basic guidance information. Most likely both the academic and work-study aspects of this will be handled through the curriculum. However, the counseling staff will have to meet with those responsible for determining what is to be available in the curriculum to insure that the necessary materials are included. Areas of information that should be provided in the curriculum include 1) orientation to career education; 2) information about the world of work in general and about representative vocations in particular; 3) psychological education, such as information about individual differences, group dynamics, and so forth; 4) information relating to the transition students must make from high school to college or to work, including information about options that are available to the students (such as work, schools and colleges, national service such as VISTA, Job Corps, and the military, delayed entrance programs to school, and so forth) and skills necessary to pursue various options (such as skills for applying for jobs); 5) information on various adult life roles, including "counter-culture" roles such as belonging to a commune; and, finally, 6) realistic (rather than moralistic or propagandistic) information about sex and drugs. To provide this kind of consultation to curriculum specialists, the counselor should be very familiar with different materials and programs in these areas that could be incorporated in the curriculum.

In addition to specifying what kinds of information should be included in the curriculum, the counselor should advise the curriculum specialists on when

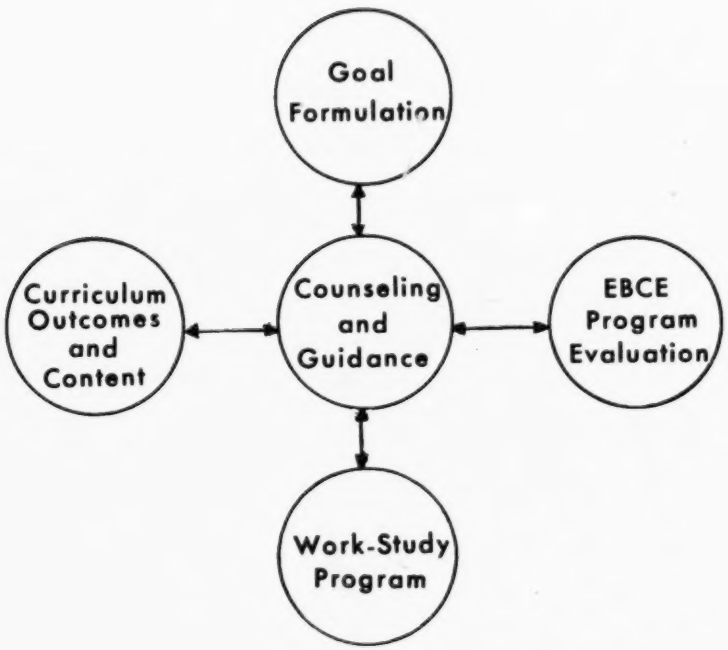
various kinds of information should be made available, to whom it should be made available, and how it should be made available (such as by assignment or request). A very structured approach in which all students receive the same information at the same time would probably not be satisfactory to students in that it does not accommodate their individual needs and interests. At the other extreme, however, simply making information available and expecting students to study and learn it on their own is also ineffective, as demonstrated by the lack of use of many of the materials lining the walls of school counselors' offices and school libraries. Some in-between point must be sought so that students will acquire the information they need to make decisions and resolve their problems.

Interface with Other Components of EBCE

There are two basic ways in which the counseling and guidance services may interface with other aspects of EBCE. First, there may be a functional relationship in which the objectives of one component are met by activities occurring under the auspices of another component, and vice-versa. Second, there may be a technical relationship in which the structure of one component influences, or is influenced by, the structure of another component. Specific incidences of each of these types of interface are described below.

Functional Interface. There are four other components of EBCE which are functionally related to the counseling and guidance services: the intended outcomes and content of the instructional model, the goal formulation program, the work-study program, and the evaluation of the EBCE model in general. The relationship between these components is depicted in the diagram on the following page.

FIGURE 2-1



The specific relationships between the counseling and guidance program and the first three of the other components described above are briefly summarized here.

1. *Curriculum Outcomes and Content.* Much of the background information necessary for effective problem solving will be conveyed to the students through the academic and work-study aspects of the curriculum; this will require frequent communication between the counseling and guidance staff and those responsible for curriculum development.
2. *Goal Formulation.* Assistance in goal formulation will be a major aspect of the guidance program's work with students.
3. *Work-Study Program.* Again, the effort to effect counseling through the students' regular program will require close coordination between the counseling staff and those personnel responsible for the work-study program.

The fourth area, EBCE Program Evaluation, has not been mentioned before and is described in more detail here.

4. *EBCE Program Evaluation.* Because counselors will be assisting students to identify their needs and to take actions to meet their needs, they will be in a unique position to provide feedback on the effectiveness of EBCE as a whole in providing a program that meets the needs of its students. By considering the problems facing the students and the ease with which they can be resolved in EBCE, the counselor will be able to identify those aspects of the program which are most and least effective. In addition, they will be able to make recommendations regarding additional problem areas to which EBCE might address itself.

Technical Interface. There are two components of EBCE which are technically related to the counseling and guidance program. First, the model adopted for the counseling services will have implications for the general staffing of the EBCE program. Second, the counselor will need to have access to information about the students and some of this information will also have to be available to the students; this will have implications for the design of the information system.

Relevant Assumptions Underlying the Counseling and Guidance Program

There are four basic assumptions which underlie the above description of the counseling and guidance services. The first assumption, mentioned earlier, is that the primary objective of a counseling and guidance program should be to develop in the students a sense of agency, of their power to determine and shape their lives through their actions.

The second assumption is that needs assessment must be an integral and ongoing component of the counseling and guidance program. A guidance program will be effective only when it meets the needs of the students as perceived by the students; if it does not meet their needs, it is likely to be seen as irrelevant and will not be utilized by the students it is intended to reach. It is important, then, for counselors to become and remain aware of students' needs.

Third, students should not be required to participate in guidance activities. If a student does not want to participate in guidance activities, it is likely that he does not view these activities as being useful to him, that is, as meeting his needs as he sees them. In this event, attention should be directed to examining the guidance program to determine how to make it more relevant for the students rather than compelling the students to participate in what seems to them meaningless activity.

Finally, the counseling program will be most effective if it is an integral part of the educational program, rather than "a place to go when you're in trouble."

Relationship of Counseling and Guidance to EBCE

The counseling and guidance program outlined above reflects the comprehensiveness of the definition of "career" as life in that it is designed to prepare students for life in general. It emphasizes the student as a person, and gives attention to the student's personal development and to the social and avocational areas of his life as well as the educational and vocational areas.

In addition, every effort is made to provide guidance in a functional context, such as in the classroom or on the job, rather than in a removed setting such as in the counselor's offices.

Finally, and perhaps most importantly, the emphasis on designing the guidance program to meet the needs of the individuals it serves by assessing those needs insures that this program will be individualized.

There is, however, one additional issue which should be explored in designing a counseling and guidance program for the EBCE model: how should the potential conflict between students' needs as perceived by students and those perceived by society, parents and other stakeholders be resolved? Students should have the opportunity to make their own decisions, including the decision not to make a decision, in order to make them aware that their lives are what they make of them, not what others will make them into. The only way students can learn that the decisions they make are important is to be given the responsibility both for making the decisions and for accepting the consequences of those decisions. However, there may be opposition to allowing the students this much freedom rather than providing guidance related to what others perceive as the students' needs. Those involved in designing a guidance program should be aware of this potential problem and should be prepared to face it should it arise.

CURRENT GUIDANCE PROGRAM EFFORTS

The past ten years have witnessed a sharp increase in the amount of research and development effort devoted to counseling and guidance services. Earlier efforts were generally of two types: philosophical dissertations and debates about the strengths and weaknesses of various theoretical frameworks, such as client-centered therapy and behavior modification; and research studies exploring the effects of different variables in the counseling relationship, such as the sex of the counselor or the setting in which counseling occurs.

Until recently, little effort was devoted to developing innovative approaches to counseling and guidance. Now, however, counselors may select from a variety of guidance approaches and actual guidance programs. In this section we shall briefly describe some of these alternatives.

Zaccaria (1969) summarized the approaches taken by various guidance programs, identifying six different general approaches. In the first approach, guidance is viewed as a general educative process in which the teacher is the primary guidance worker and the curriculum is the primary vehicle for accomplishing the guidance objectives. This approach provides general guidance for all students; students with special problems are generally referred to specialized personnel. The PLAN Guidance program is an example of this type of approach (Flanagan, 1970; Du 1970). In that program, individual learning units relating to decision-making skills, occupational information, long-range goal formulation, and post-high school transition were included in the students' social studies and language arts curricula (Dunn, 1970). A detailed summary of this program may be found in the Proceedings of the Eighth Invitational Conference on Systems under Construction in Career Education and Development, soon to be published by the American Institutes for Research, or by writing Dr. James A. Dunn, Director, Developmental Systems, American Institutes for Research, Post Office Box 1113, Palo Alto, California 94301.

A second general approach emphasizes the preparation of students for their educational/vocational futures. Choosing an appropriate occupation is the primary objective of this approach, and the guidance activities involve providing the students with various kinds of test data about themselves and with information about a variety of jobs; the students' task is to match their qualifications with the characteristics of the jobs and select the vocation which seems most appropriate in light of this analysis. Many of the recently

developed computerized vocational decision-making programs, such as the Information System for Vocational Decisions (Tiedeman, 1968) and the Computerized Vocational Information System (Harris, 1970), reflect this emphasis on the centrality of work and vocational planning in life. This tends to be a narrow approach to guidance, however, in that it ignores all non-vocational aspects of a student's life.

Crisis-oriented or remedial guidance is a third approach in which the counselor attempts to help students resolve their problems according to the traditional connotation of the word. The target of this approach is not all students but rather those who deviate in some way. Because of time constraints and the immediate urgency of the crises, many regular school counseling programs unfortunately fall into this category of guidance programs by default. The main objection to this type of program is that it focuses too narrowly on the needs of a few, ignoring those general developmental needs of all students.

A fourth approach is found in those guidance programs based on a number of guidance personnel, each providing different, specialized services: one counselor might be responsible for testing, another for vocational guidance, and another for personal counseling. The variety of services offered in such an approach suggests that students have a variety of different needs and each type of need requires special attention. The comprehensiveness of this approach is praiseworthy but there is also a risk that the counseling and guidance program will become too fragmented and beset by problems of coordination and communication to be fully effective.

A fifth approach is more a conceptual than an operational plan; it asserts that guidance should be a continual process, meeting the different developmental needs of students as they grow. Particular emphasis is given to problem prevention (rather than remediation) and to the actualization of human potential.

However, the roles and activities of various guidance workers in such an approach are at present only vaguely defined.

The sixth, and last, approach is the result of applications of research and learning theory to counseling and guidance: the behavioral approach. Rather than focusing on specific types of needs of students, this approach emphasizes identifying behaviors that need to be acquired, maintained, or extinguished, and engaging in activities to bring about necessary changes in behaviors. While there is much evidence for the effectiveness of this behavior modification approach in accomplishing the desired behavior changes (Kramer, 1968; Thoresen, 1967), many critics question the right of the counselor to manipulate another person's behavior patterns.

Many programs are currently being developed which represent combinations of several of the above approaches. The Comprehensive Career Guidance System (CCGS) developed by Jones, Nelson, Ganschow, and Hamilton (1971) is an example of this type of program. The CCGS focuses on six areas of student needs: vocational, educational, personal-social, academic-learning, citizenship, and leisure. For each of these areas, it covers certain developmental guidance activities such as orientation, personal assessment, information about personal choice options, decision making, and goal formulation. In addition, prescribed learning experiences are identified for resolving problems experienced by only some of the students. The overall focus of the program is on assisting students to make decisions for themselves and thus to produce changes in their lives for themselves.

While the programs described above are only a few of the guidance programs currently being developed and used, they are representative of the different approaches that are being followed today.

FEASIBILITY ANALYSIS OF ALTERNATIVE MODELS FOR COUNSELING AND GUIDANCE IN EBCE

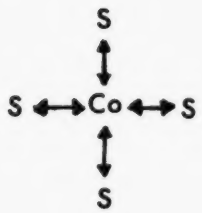
In this section, five models for counseling and guidance services in EBCE will be proposed and discussed. Each model will be analyzed in terms of the following variables: 1) how will the counseling activities outlined previously be accomplished? 2) who will fulfill the role(s) of the counselor? 3) what special skills, if any, will be required of the counselor? 4) where will the counseling occur? 5) what special administrative arrangements, if any, will be required? 6) what provisions will there be for assessing the effectiveness of the counseling program? It should be noted that recommendations regarding the preferability of specific counseling techniques, such as leading groups or using behavior modification skills, will not be made; it is assumed that the counselor should be skilled in a variety of counseling techniques and that use of various techniques will be determined by the situations being dealt with, rather than by the model of counseling and guidance services that is implemented.

In addition, each model will be evaluated in terms of its general relevance for alternative EBCE models and its implications for personnel, facilities, and so forth in the different models; its costs, compared to the gains offered the students; and general cost-benefit considerations.

Traditional Model

This model is similar to traditional counseling and guidance services found in schools where specially trained personnel are responsible for counseling a certain portion of the student body. Most of this counseling occurs on a one-to-one basis, as shown in the diagram on the following page.

FIGURE 2-2



(Note: In diagrams, "S" will refer to "student," "T" will refer to "teacher," "Co" will refer to "counselor," and "Su" will refer to "supervisor.")

Thus, the counselor is primarily responsible for the guidance of the students. He may meet with teachers or supervisors to discuss topics such as problems students have in their class or work situations, but little effort will be made to effect guidance through the class or work-study experiences aside from the guidance materials contained in the curriculum. The counselors may, however, individually or as a group, meet with the teachers and work supervisors to discuss the general objectives of the EBCE program and the roles of the teachers and supervisors in relation to these objectives. Finally, the counselors will work with the curriculum specialists, advising them about the guidance components of the curriculum.

This model calls for specially trained counselors who are able to provide a variety of counseling services. It is likely that professional guidance and counseling personnel will have to be hired; if agency staff members are assigned this role, they will probably need special training in the functions and skills of counseling. In particular, they will need skills for interviewing and communication (such as active listening) since the majority of their work will involve direct interaction with students.

In addition, this model will require special administrative arrangements. Office space where the counselors can meet with the students will have to be provided. Also, some form of secretarial support will have to be provided to keep track of student appointments and other administrative details. However, one or more of the students could perhaps handle this task as their work-study experience.

Evaluating the effectiveness of the counseling provided under this model must rely on the subjective reactions of the students and counselors, as no other data, or source of data, are available. Assessment efforts should focus on specific guidance activities which were helpful or not helpful, or specific activities which would have been helpful, rather than general reactions to the overall effectiveness of the guidance service. In this way, specific guidelines for modifying and improving the guidance services can be formulated.

This model for counseling and guidance programs does insure that students receive individual attention to their problems but it is rather limited in the number of resources brought to bear on the problem, since the entire responsibility for the counseling rests with the counselor. In addition, the counseling program is not as well integrated with the remainder of the EBCE program as it might be. This approach would best be used in an EBCE program which was organized and administered by and within one large firm; in a consortium-type program there would be a risk of impaired coordination and communication between counselors located in the different agencies. Moreover, questions regarding the assignment of students would have to be dealt with. As students change work sites, would they be assigned to different counselors, or would counselors be responsible for students at a variety of work sites? The latter alternative would be preferable in that it would preserve continuity for the students, but it would be more costly in terms of counselor time and administrative arrangements.

In general, this is likely to be one of the more costly models. There are two reasons for this. First, since the counseling for the most part will occur on a one-to-one basis, many counselors will be required to administer to the needs of all students. Secondly, the responsibility for the counseling rests solely with the counselors, so the amount of work required cannot be shared with teachers and supervisors. Additional factors which could add to the costs of this model are the administrative arrangements required and the training which may be required, should agency staff fulfill the roles of counselors. In conclusion, the costs do not seem to be warranted as the outcomes of the program, particularly regarding the students, are somewhat less than those of the other models.

Curriculum Model

This model is similar to the educative approach described by Zaccaria in which guidance is accomplished through curriculum materials. Learning units dealing with the problems of self-assessment and self-awareness, techniques for problem solving, and procedures for goal formulation would be taken by the students. Some units, representing problems experienced by most or all students, would be assigned to students as part of their regular program, while other units, dealing with specific problems of only a few students, would be available by student request or teacher or supervisor recommendation. Hopefully, these materials would be sufficiently sophisticated to provide supplementary or enrichment activities and in other ways allow for individualization of the program.

The function of the counselor in this model is primarily concerned with designing and implementing the guidance curriculum materials. Most of his work will be with the curriculum specialists in identifying the objectives of the program and the learning activities which will assist the students to

meet these objectives. Existing guidance materials and programs may be incorporated to cover some of the guidance objectives, but some materials may have to be developed especially for this program. In addition, the counselor will need to work with the teachers and work-study supervisors who will be responsible for implementing the program; not only should they know what types of units the students will be working with, they should also be aware of the available units dealing with special problems so that the system is used to its fullest extent.

The role of the counselor may be filled by either an agency staff member or by someone from outside the agency. It is not necessary that he be skilled in such counseling techniques as interview skills, but the counselor for this model should know the purposes and functions of the counseling and guidance services so that he can formulate the objectives for the program. In addition, he must be thoroughly familiar with materials and programs currently being developed or already available so that he can recommend those most suitable for inclusion in the EBCE guidance program. Finally, it would be useful if he had some knowledge of or experience with curriculum development since this is likely to be a major activity in this model.

Special administrative arrangements will need to be made to handle assigning the learning units to students and monitoring their progress on the units. If the EBCE program is being managed via a computer, then the guidance materials could be similarly monitored. If a computer is not available, it will be necessary to assign some staff members to this responsibility, for it is imperative that the counseling program be individualized and this will require close supervision of both the needs of the students and the guidance units with which they are working.

Evaluation of this model can be accomplished more easily than with the other models because data will be available on the students' performance on the modules they take. This, in conjunction with specific feedback from the students regarding their attitudes toward the guidance program, will provide a comprehensive description of the effectiveness of various aspects of the program. Not only will evaluators be able to determine the program's effectiveness in meeting student needs, but they will also be able to identify those aspects (units) of the program which contribute the most or least to the program's effectiveness.

This model would be especially relevant for EBCE programs in which the students are dispersed, such as programs administered by a consortium of agencies, for the student would not be required to be in a specific place to meet with a counselor. Moreover, in this program, students can truly work through the guidance activities at their own rate and when the activities are relevant, rather than waiting for the counselor to become available. However, as pointed out earlier, there are distinct limitations on the flexibility of such a program. While students can take the learning units most closely meeting their individual needs, it is unlikely that there will be learning units which will perfectly suit the problems of all the students. Furthermore, for students to receive the special guidance units, they must request them or their teacher or supervisor must become aware of the problem and recommend the modules to the students. If the student is unaware of the units that are available, or if his problem goes unnoticed, then he will not receive the guidance he needs.

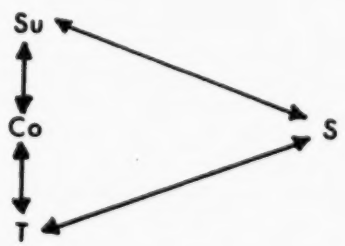
While there would be little direct expense for the counselors in this model, there would be a great deal of expense involved with the adoption, adaptation, or development of the necessary curriculum materials. However, this expense would be greatest at the outset of the program; operating costs would probably be less

for this model than for any of the others. The main weaknesses in this program seem to be in the degree to which it meets students' needs; the lack of flexibility in this model due to the lack of direct personal involvement must restrict the effectiveness of the counseling program in meeting students' needs as they occur.

Consultation Model

In this model, the counselor serves as a guidance consultant; the actual counseling is provided by the teachers and supervisors, through the students' in-class and work-study experiences, as shown in the following diagram.

FIGURE 2-3



This model is sometimes described as the Kaplanian model and was the subject of extensive research some years ago by the University of Texas Interprofessional Research Center on Pupil Personnel Services (IRCOPPS). There is no direct student-counselor interaction in this model. As a result, most student counseling is likely to occur either in group activities or in special conferences with the teacher or supervisor. But because the teacher and supervisor share the responsibility for the actual counseling, the guidance will of necessity occur in a functional context.

To fulfill this role, the teachers and supervisors will need to be trained in counseling techniques, particularly skills for group counseling since most of their contact with the students will occur in a group setting and since they will not have a large amount of time apart from their regular duties to devote to individual counseling. The role of the counselor will be to meet with the teachers and supervisors to discuss specific student problems and make recommendations for dealing with those problems. Thus, while the counselor will not be directly involved in student counseling, his indirect involvement makes it necessary that he be particularly skilled in a variety of counseling techniques so that he can recommend appropriate ones to the teachers and supervisors and, if necessary, train them in the use of those techniques.

A final responsibility of the counselor would be to work closely with the curriculum specialists to determine what materials should be included in the curriculum for the students.

This model relies upon a number of counseling personnel with varying amounts of training. The counselor must be particularly skilled in the use of counseling techniques; the teacher and supervisor must be adept at identifying problems and at assisting students to meet those problems. As a result, both the counselor and supervisor will have to receive some special training in counseling techniques. It is likely that the counselor would be a professionally trained guidance and counseling worker. This would not only provide him with the requisite skills, but would also have the added advantage of making him a neutral party, without special allegiance to either the academic or work-study aspects of the EBCE program.

The only real implication for administrative arrangements of this model is the need for close and frequent communication between the counselor and

the teachers and supervisors. Such meetings will be necessary in order to provide a coordinated guidance effort for the students.

Because of the number of people that would be involved in a counseling program according to this model, a number of people would be able to react to the effectiveness of the program. Although objective data would not be available, as in the previous model, both the teachers and the supervisors would be able to comment on the effectiveness of the program and of their individual efforts in it.

This model has the advantage of being well-integrated in the students' educational program, but runs the risk of being too integrated. While the guidance is provided in a functional context, if part of the student's problem is the teacher or supervisor, then he has no outside party to turn to. Because of the reliance on agency staff (teachers and supervisors) for implementing the guidance program, this model would be equally well suited to a centralized or a dispersed model of employer-based education.

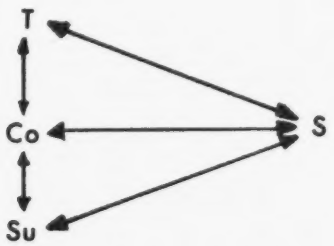
The costs of this model tend to be real, rather than financial. Very few counselors will be required, since their main function is to coordinate the activities of the teachers and supervisors. The main monetary expense would be for training for the agency staff involved in the counseling program. However, this model would greatly increase the responsibility of the teachers and supervisors, so that additional personnel might be required in these areas for both the counseling and teaching or supervising functions to be adequately carried out. Another cost, though of a different kind, is related to the counselor's expertise, which is not likely to be fully utilized in this model where his only responsibility is for consultation; the program would be paying for more than it actually used.

In general, then, this model is likely to provide an integrated guidance program that will meet most of the students' needs, but it is likely not to fully utilize the resources it has available.

Multi-Facet Model

This model is similar to the one previously discussed except that in this approach the counselor, as well as the teacher and supervisor, is involved in the student counseling, as shown in the following diagram.

FIGURE 2-4



The agent with whom the student interacts would be a function of the type of problem he had and his choice of agent. The teacher would deal with problems relating to the student's classroom activity and the supervisor would work with the student on problems relating to the work experience. However, it is expected that many of the students' problems will not be able to be neatly assigned to one domain or the other, so communication between the teachers, counselors, and supervisors will be very important. Group activity, in which the teacher and supervisor, as well as the counselor, are present should be an important aspect of the counseling program according to this model.

Because the counseling function is shared among the teacher, supervisor, and counselor, it is not as necessary that the teachers and supervisors be as

fully trained in counseling techniques in this model as in the previous model. They need only have the basic counseling skills--the counselor's expertise in more sophisticated techniques would be brought to bear on the more difficult problems.

Some facilities for counselor-student interaction would have to be made available, but by sharing the counseling with the teachers and supervisors the need for facilities would be far less than in the first model proposed. However, the need for coordination among the various counseling agents is very great; if this model is to succeed, the teacher must have information about the student from the counselor and work-supervisor, the supervisor must have information about the student from the teacher, and so forth.

With regard to evaluating the effectiveness of this model, the observations of all the agents should be considered both in determining the effectiveness of counseling with specific students and in assessing the effectiveness of the program as a whole. By having a number of observations to consider, the individual reactions serve as checks on the validity of the others.

This model, then, seems to include the advantages of the models previously discussed, while eliminating many of the drawbacks of those models. The guidance program is fully integrated into the educational program and the students' guidance occurs in a functional context. Because of the coordination between counselor, teacher, and supervisor, a variety of experiences and areas of expertise are brought to bear on any single student's problems. The student has a variety of counseling agents he can consult, all of whom are familiar with him and his own needs. In addition, the program could be implemented in either a centralized or dispersed EBCE model program.

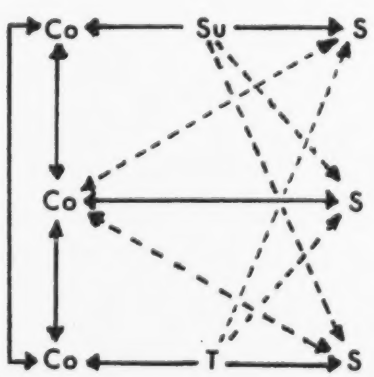
While this model will require more counselors than the previous two models, it will require less in the way of training for the teachers and supervisors.

The biggest cost associated with this model will be in the time required of the teachers and supervisors for the counseling activities, and this cost cannot be avoided if teachers and supervisors are to be involved in the guidance activities. The next model to be discussed attempts to incorporate the benefits of the multi-facet model while relieving the demands on the teachers and supervisors.

Counseling Team Model

In this model the counseling staff consists of a team of specialists: some of the counselors may work very closely with the teachers to identify and resolve problems relating to the classroom setting; others may work very closely with the supervisors and work-study coordinators to resolve problems in that area; still others might specialize in group work or in testing. While each counselor would be nominally responsible for a portion of the students, and would coordinate the activities of the other counselors relating to his assigned students, the students could become involved with three or four or five different counselors, depending on the nature of the problems with which they sought assistance. The diagram below displays the elements of this model and their interrelationships.

FIGURE 2-5



Because many of the counselors are likely to be involved with the same students in this model, regular communication among the counselors is imperative in order that a measure of continuity be maintained for the student. Contact between the counseling staff and the teachers and supervisors would also be important, but in this model it would be more for information sharing or for consultation to the teachers and supervisors than for effecting guidance through them. Some of the counselors should make an effort to frequent the class or work settings, both to establish communication with the teachers and supervisors and to observe the activities going on so that they have a context for viewing the students' problems.

The specialized nature of the counselors' activities in this model will probably necessitate hiring professional counselors for the EBCE program. It is hoped, though, that sufficient use will be made of group counseling activities and of counseling through the class and work situations that it will not be necessary to have a large number of counselors. Also, by not having the counselors' time spent on both teaching and counseling, or supervising and counseling, the counselors are likely to be able to make better use of their time.

Special facilities will be required for the counseling program and some secretarial support will be desirable; however, these facilities and support services should not be as extensive as those required for the traditional model.

Evaluation of this model, as in the multi-facet model, would be based on the combined reactions of the various counselors, as well as the reactions of the students. In addition, some feedback could be obtained from the teachers and supervisors regarding the effects they saw on the students.

The main advantages of this model are that it presents a comprehensive counseling program and is closely related to the students' educational program

without placing demands on the teachers' and supervisors' time, or asking them to fill roles for which they may not be prepared. However, it would be difficult to implement in a program where the students were widely dispersed, for much of the counselors' time would be spent in getting to and from the different work sites.

Another disadvantage of this model is its cost; in this respect it is like the traditional model. However, if teacher and supervisor time is also highly valued, these costs may be justified. Finally, there is a risk that this model might become too decentralized if there is insufficient communication between the various counselors.

In general, then, this model brings a great deal of expertise to bear on the problems dealt with by the counseling services and attempts to provide a counseling program that is closely integrated with the general educational program, but the model will be expensive to implement.

In conclusion, the models that seem to be most relevant for implementation in EBCE programs are the multi-facet model and the counseling team model. They seem most likely to meet the general EBCE objectives of individualized guidance which occurs in a functional context. It should be noted that combinations of these models could also be implemented. For example, if the curriculaum model were combined with one in which personal guidance was available to provide for greater flexibility and for meeting the individual needs of the students, then that too would be a powerful model.

Decisions about which model should be adopted must in the long run reflect the priorities of the program designers. If costs are the most important factor, then the counseling team model would be impractical; if a shortage of personnel is most important, then the curriculum model would be desirable. Whatever the priorities, one of the models discussed or some combination of the models should fit the demands and needs of the EBCE program.

Chapter III : WORK EXPERIENCE

This chapter considers the provision of pupil personnel services. Four major lines of attack are followed.

The first is to outline what work-experience programs have been, when essentially organized by the schools (in which case they tend to be called work-study programs), and indicate how work-study programs have been influenced by their administrative arrangements. This section will basically indicate structural and functional relationships which have existed in work-study programs.

The second line of attack is to sketch out the nature of the work-study experience and the career understandings which students ought to obtain through an EBCE Model. The EBCE Model must facilitate the emergence of an understanding of career as total life experience, not just the achievement of satisfactory work behavior. Moreover, work has to be viewed as one means through which one lives, not as the single definition of life. Therefore, an ideal is outlined in the second section, an ideal against which it then becomes possible to determine some of the give and take between intentions and actions as EBCE Models are presented and what is gained and lost in each is considered.

The third line of attack is to point to three administrative arrangements or models which are likely to emerge within the intentions of EBCE. Each of these models will have implications for the way in which the goals of work experience within the pupil personnel services in EBCE might be realized. In addition, the goals of pupil personnel services impose certain minimal requirements on the organizational arrangements which shall also be noted.

Finally, the fourth line of attack lays out these organizational and intentional implications for the three organizational models, and shows how the goals of pupil personnel services might be sought and be given high likelihood of realization within each organizational model.

CHARACTERISTICS OF EXISTING WORK-EXPERIENCE PROGRAMS

Work-experience programs are by no means new to American education. In the 18th century, businesses and industries were already involved in providing some form of instruction for our youth. Business and industry have, of course, directed much of their educational effort toward training of their own employees or potential employees--either orienting and developing skills in potential recruits and new employees or upgrading the skills of experienced employees. Apprenticeships are the earliest form of such training programs; these programs can still be found in the crafts and trades. However, most other businesses have moved away from this type of training program during the 20th century. The following section describes the types of work-experience programs that can be found today.

Structures of the Programs

One way of considering available work-experience programs is according to their basic structure. Traditionally, work-study programs, as they tend to be called, have been separate components within the secondary schools' programs, or occasionally, even separate schools. For instance, until lately students just had the option to enroll in either the vocational or the college-prep program. Within the vocational program, students would receive "watered-down" courses in basic subjects such as English and mathematics, and take courses developing specific job skills such as typing, auto mechanics, or

drafting (Harris, 1971). Often students would be able to get a part-time job on school-released time, for which they could receive pay or credit. Although alternative program structures now exist, these traditional work-study programs are still found in many schools today.

A second approach to work-experience education programs is that of practicum or internship experiences such as are associated with the training of teachers, counselors, doctors, nurses, management personnel, and other professionals (Delaney, 1970; Ross, 1969). In such programs, students enroll in a program of courses and, either concurrently or subsequently, work part-time in a job setting. The work experience may vary from assisting professionals already in the field, such as in practice teaching, to being a full-fledged employee, such as a teaching or medical intern. These programs are operated by the school and school staff are responsible for coordination with the field staff or employers. However, these programs are usually found at the college, or occasionally the junior college, level.

A third general type of work-experience program is the cooperative education program, which involves some combination of study experience in a school setting and on-the-job work experience, but usually not of a highly directed and coordinated kind such as an internship. But these programs, like the first two types discussed, are operated and administered by school staff, and they are typically found in community colleges as well as secondary schools (Bennett, 1969). An exemplary cooperative education program of high flexibility is that of the San Mateo community college district in California (Bennett, 1971). Students in this program select one of three different plans:

1. parallel plan, where students work in the morning and attend classes in the afternoon, or vice versa;
2. alternate semester plan, where a student takes courses one semester and works the next; and

3. extended day/evening plan, where a student works during the day and follows an abbreviated class schedule in the evenings.

This program is open to students in all academic disciplines, and involves over 50 employers in the Bay Area in the cooperative relationship.

A commonly encountered variation on this theme occurs where a cooperative relationship is established with a particular firm rather than with a variety of firms in the community. In a survey of cooperative programs in the 50 states, Schill (1966) reported that over two-thirds of the schools contacted had only one employer offering in their cooperative education program. Project STRIVE, the result of a cooperative effort between Pacific Telephone and Telegraph Company and the Santa Clara Unified School District, is an example of this type of program (Lanfri, 1969). However, it is also unusual because it has a highly articulated relationship between study and work as well. In this project, staff from both the telephone company and the schools worked together to prepare courses which train students in the skills required for specific jobs, such as operator. In addition, they have developed support components consisting of counseling and exploratory and vocational work experience. Another program of this type is found in the Cooperative School-Hospital Program in Cranston, Rhode Island (Burchill, 1962). This program attempts to integrate the work experience and class facets of the program. For example, in their Social Studies classes the students explore and discuss the social system and fundamental concepts of the hospital. Special classes are established in order to provide this vocational focus for the students.

A fourth type of program is the partnership program. These programs, contrary to the previous types, are often initiated by businesses and the participating firms share in the management of the programs. A study completed in 1969 indicated that there were over 60 such programs being conducted in the

U. S. at that time (IED, 1969). These programs are functionally similar to the cooperative programs; the distinctions between the two types are found in the role of business in the organization and management of the program. For example, in many of these programs the businesses have donated one of their staff members to serve as program coordinator. In addition, company employees may serve as tutors and instructors as well as field supervisors.

It should be noted that while industry and business are becoming more involved in providing work experiences for students, these programs are still being primarily designed as alternatives to college-prep programs.

Role of Business/Industry in Work-Experience Programs

Three basic types of administrative structure of work-experience programs can be identified in the above program structures. First, and most common, are programs which are administered and coordinated by school staff. Under such organizations, school staff members design the program, make the necessary contact with business in the community, conduct classes and seminars related to the work-experience program, supervise the students in their work assignments, and monitor the students' progress in the program. Business and industry involvement is generally confined to providing facilities and work positions for the students.

A second type of administrative structure is based on sharing the responsibility for designing and conducting the work-experience program between schools and the community. Projects where businesses assist schools in the development of program materials, provide supervision for student workers, and assist in student monitoring and placement are included in this category. While business and industry are more involved in the program by going beyond providing work positions, the primary responsibility still rests with the schools.

The third general mode of business and industry participation in work-experience programs is found in programs administered by technical advisory boards. These boards are made up of representatives from schools, employers, civic groups, students, parents, school boards, and any other groups having a vested interest in the educational program. The advisory board, or board committees, are responsible for designing and conducting the work-experience program, so that the ideas, interests, and concerns of the various groups are incorporated in the program.

Functions of the Programs

It can be seen from the above structural statements that a variety of purposes are served by work-experience programs. Some programs meet a number of these general objectives; others address themselves only to one or two.

Probably the most common function of work-experience programs is to provide training in specific job skills. In such programs, the student usually works at a single job in an apprentice-like relationship. Businesses often hope that by conducting such programs they will have a pool of properly trained people from which they can draw when they want to hire someone. In addition, participating in such work-study programs enables employers to have full coverage of work assignments (Bennett, 1969). The latter consideration, of course, is more relevant when unemployment is not so great as at present.

A second, frequently encountered, function of work-experience programs is to provide for job exploration or sampling and for improved vocational planning. Santa Barbara County high school district is an example of this type of program (Fielstra, 1961). The program offers students work experience on an exploratory basis with a variety of firms, with the expectation that students will not only learn firsthand about their own interests, abilities, and aptitudes through their work activities, but also that students

will be able to make better job choices and will be better prepared for work when they are ready for full-time employment. Three levels of work experience are offered in this program. Exploratory work experience involves part-time work on school-released time in a variety of occupations. General work experience requires more of the students since they are considered regular, though part-time, employees, subject to regular work standards. Again, students may have this general work experience with a variety of firms during the school year. Vocational work experience provides the deepest level of experience, a level where students work in a particular area of interest as determined from their exploratory and general work experiences. These levels of increasing involvement insure that students have an opportunity to learn about a number of jobs before becoming deeply involved in a single occupation. Thus, students in the program have a broad base of information acquired from real experience with a variety of occupations upon which they can draw in their career planning and decision making.

A third function of many work-experience programs is to assist the students to develop job-related skills and behaviors. These include application and interview skills necessary for obtaining a job, desirable on-the-job behaviors such as responsibility and punctuality, and so forth. Programs, such as the one in Santa Barbara County schools described above, attempt to develop these behaviors through the students' on-the-job experience. In addition, business representatives may offer "employment readiness" courses for students in the schools.

A fourth, though less emphasized, purpose of work-experience programs is to foster students' personal/social development. The Concord-Carlisle Cooperative Educational Program in Concord, Massachusetts, provides an example of how this goal can be accomplished through work experience. The objective of

the program is to enhance self-realization and self-direction through integrating classroom study with planned and supervised practical experience. This experience may be gained in educational, vocational, social service, or cultural learning situations, as long as they occur outside the formal classroom. Students in this program participate in three different types of activity: they work in a formal job situation, for which they receive pay and/or credits; they engage in volunteer service for the community; and, they tutor elementary school children. In addition, students have assumed much of the responsibility for organizing and administering the program (Curtin, 1970).

A much less commonly encountered function of work-experience programs is to provide academic or general education to the students. This can be accomplished in a variety of ways. A business may work with a school in developing curricula for vocationally relevant classes, as was done in Project STRIVE (Lanfri, 1969). Businesses may donate equipment or materials to the schools for use in the classes. Occasionally, business personnel may actually teach classes on the school campus.

Finally, some work-experience programs are established simply to provide a hopefully better alternative to traditional schooling for students who are having difficulty with school. The general assumption underlying these programs is that if schools aren't meeting the needs of these students, perhaps work-experience will.

Target Group

Finally, the content of work-experience programs markedly differs according to the particular target group for which they are intended. As noted in the beginning, most of these programs are planned for the non-college-bound students. Programs are also often designed for additionally restricted segments of the student population. The chart on the next page summarizes the numbers of work-

experience programs reviewed in this study, intended to benefit the specific target group noted:

Target Group	Frequency
Dropouts	7
Delinquents or Pre-delinquents	3
Rural Youth	2
Mentally Retarded	3
Handicapped	1
Disadvantaged	7
No Special Focus	7

Thus, out of the thirty specific programs reviewed, over 75% were designed for special segments of the population. Furthermore, these special segments usually were comprised of low-achieving students or students who were in some way disadvantaged, suggesting that these programs were intended to provide an alternative to students who were not doing well in school. While this effort is commendable, one wonders if those students who are getting along in school would not also benefit from work-experience opportunities. The reactions of many middle-class students who are supposedly capable of doing school work against school activities and assignments suggests that seeing the relevance of school for one's life is important for students at all levels.

Research Findings

Most of the research relating directly to work-experience programs has been concerned with evaluating various programs. The following summarizes the general conclusions and recommendations that can be drawn from these studies.

1. Close coordination and communication between the school(s) and business(es) involved in work-experience programs is a prime requisite for a successful program. Similarly, from the students' viewpoint the work and study experiences should be closely integrated to provide a functional context for the students' learning (Boyer, 1970; Burchill, 1962; Banta and Marshall, 1970; Myers, 1969).

2. Frequent and careful supervision of the student in the work situation is necessary in order to fully capitalize on the potential for learning through work experience. A related point is that the program should be carefully structured and guidance should be provided for the individual students. Banta and Marshall, in discussing common elements of successful programs, conclude "the more structured a program, the more motivated the participants, the better their retention rates and job placement" (Burchill, 1962; Banta and Marshall, 1970). It must be remembered, however, that external structure may well be needed to stimulate and frame progress, but that living "beyond structure," so to speak, is necessary for completion of education and career in the life process.

3. Instructors, coordinators, supervisors, and other staff involved in carrying out work experience programs need special training to sensitize them to program aims and the special needs of the participants (Banta and Marshall, 1970; Woodruff, 1971).

These recommendations are based on personal reactions to the programs of students and staff members, plus the opinions of experts surveying and analyzing the programs.

Data relating to the effectiveness of the various work experience programs are contradictory: some programs have found improved academic performance of students participating in work-experience programs (Wohl, 1968), while others show no improvement (Myers, 1969); some reports show improved performance of job skills (Ferguson, 1967), while others report that the only effects are personal, related to independence, responsibility, maturity, etc. (Hamburger, 1967); some reports suggest that students like or enjoy the programs (Wohl, 1968), while others report student dissatisfaction with the program (Myers, 1969). There has been little, if any, programmatic effort to identify effective or ineffective elements of work-experience programs; thus, there is a lack of a strong body of knowledge regarding what works or doesn't work in work-experience programs. As a result, it is difficult for practitioners to know what they should or shouldn't do in establishing such programs.

THE WORK-STUDY EXPERIENCE WITHIN EBCE: LEARNING THROUGH A FUNCTIONAL CONTEXT

In this section we outline the functions and structure of work-study experiences as they should ideally occur within EBCE. The primary goal of work-study experience should be to help the student develop and achieve his identity at and through work. This involves amplifying the student's conception of what work is. In a work-study program the individual must come to grips both with himself and with the realities of a work-study situation. The work-study program must, therefore, be designed to see both that this accommodation does take place and that the individual benefits from it by developing skill in his work, and confidence in himself, particularly confidence in his ability to shape his own life through the opportunities and rewards of work. A work-study program, then, will be viewed as an opportunity to learn in a functional context.

Prior to entering a work-study situation--going to work to learn--the individual largely hears about what is required of employees at work and how he will benefit from its supposed rewards. Once on the job, the individual has an opportunity to experience what is required, to gain some of the supposed rewards of work, and to determine whether he can readily "put it all together" by himself, or whether he will need guidance and assistance from others. The work-study program, then, must be designed and managed to provide these three opportunities. And, as the individual needs guidance and/or assistance, these services should be available to him. Otherwise, the benefits which ordinarily accrue from learning while doing--learning about one's self while learning a fact or a skill--will not materialize.

Objectives of Work-Study

There are several specific goals which the work-study program should try to achieve in effecting this understanding of work. First, the student should be helped to understand the career development process as consisting of two distinct and often conflicting forces. On the other hand, there are continually a large number of options, or possibilities, open to the student, and he should be encouraged to keep many options open to him to maximize his flexibility. On the other hand, the student is expected to formulate some goals for his life and to pursue certain of these goals, thereby realizing some of the options to the exclusion of the others. The relationship between these two forces is one of continual tension and flux. The student should be made aware both of the nature of these forces and of the relationship between them. In addition, he should be taught to incorporate this understanding in decisions he makes regarding his career. By offering the student the opportunity to learn about a number of occupations (options) through a variety of work experiences and at the same time assisting him to formulate goals and to

develop specific job skills, the work-study program should introduce the student to the two forces and give him practice in relating them to his own decisions.

A second objective of the work-study experience is to enhance the student's self-understanding or self-awareness through the work activities. This happens in the work-study program when the student is helped to identify specific needs or concerns and to resolve them, all the time being encouraged to "watch himself" doing both.

Third, the work-study program should provide a functional context for the student's learning, both for his academic or in-class learning and for his learning about self. All of the elements of the work-study program should attempt to accomplish an integration between theory or concepts and actions or skills.

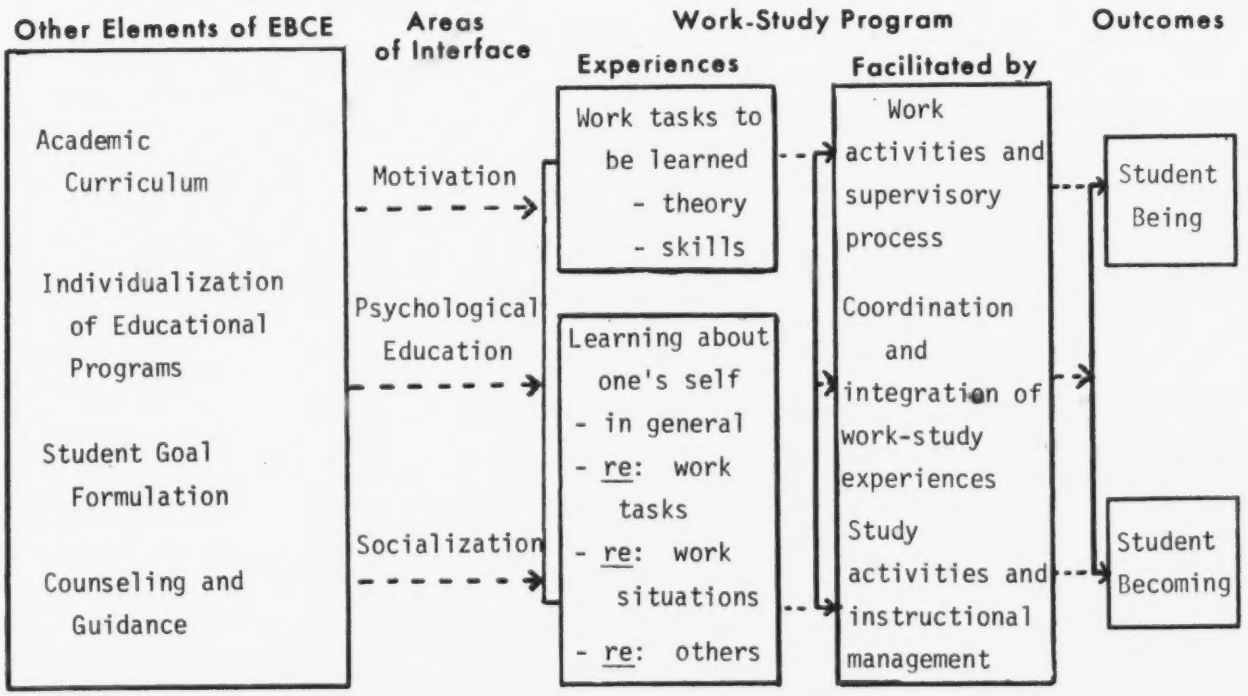
Finally, and perhaps most important, the work-study program should attempt to develop in the student the previously described sense of agency--his ability or power to mold his life through his experiences and their interpretations. Related to this is the need for the student not only to be responsible but also to feel that he deserves, i.e., has earned, this responsibility and to accept the necessity of having and keeping it.

A System for Personal Integration of Work and Study

Major Elements. In general, there will be three basic elements of the work-study experience: the actual work, or on-the-job experience; the study of academic learning experience; and the coordinated, integrated experience. The work supervisor, the instructional manager, and the work-study coordinator will share the responsibility for providing the necessary guidance and assistance to the student to make the work-study program maximally meaningful to him.

Interface with EBCE. Many of the goals of the work-study program are but special applications of the general goals pursued by the Pupil Personnel Services and by EBCE. The context of work-study within EBCE can be schematically represented as follows.

FIGURE 3-1



Analyzing and acting during decision making are the principal elements for learning about one's self-becoming while studying and acting. Hence the interface of the work-study program must be particularly articulated with the decision-making activities in the total program. Diagrammed above are only the broadest of the relationships required in the interface between work-study experience and the other aspects of EBCE that are concerned with personal decision making. More specific relationships between work-study experience and the other areas are described below.

1. *Academic Curriculum*. It may be assumed that the curriculum will consist of behaviorally identifiable units with related task and instructional activities. Furthermore, certain of these units will relate directly to the development of the student's work identity.

2. *Individualization of the Educational Program*. It may be assumed that the student's program will be sufficiently individualized to facilitate the process of learning while doing.

3. *Student Goal Formulation*. It may be assumed that, in assisting the students to formulate their goals, attention will be given to the problem of maintaining the maximum amount of flexibility while still making progress toward a goal or set of goals.

4. *Counseling and Guidance*. It may be assumed that a major objective of the counseling and guidance program will be to facilitate the student's becoming while being--that is, to develop in the student the ability to learn about his self-becoming through his study and work. This objective of the pupil personnel services will be accomplished primarily through the work-study experience program.

As shown in the diagram, there are three specific areas in which this interface can be realized. First, the various elements of the EBCE model should work together to increase the student's motivation both to work and to learn. We presume that curiosity causes the person to attempt what to him is novel in study and work, that curiosity can and will be helped to develop into a drive for becoming effective while striving, and that the individual will comprehend such a transition.

Second, the EBCE program should develop in the student an understanding of basic psychological principles, so that learning about self and the development of an individual identity can be accomplished.

Third, the different elements of the EBCE model should allow for instruction and examination of self-in-situation and of how one feels toward himself in the gestalts which he creates in situations. This process should provide the context in which the socialization process can be exposed and the socialized self comprehended. The sequence of development in this area ought to emerge as follows:

1. being one's self in a group;
2. being one's self in a work group; and
3. assisting peers wanting to become at work.

[This sequence has formal correspondence with Frances Fuller's Concerns Model (1969) which is further described later. This development ought to follow her schema as well as the development considered later.]

The Work Experience within Work-Study. It is expected that students within EBCE will be in a work situation as much as possible, for work is to provide the functional context to which learning is related or in which learning actually occurs. There are three major keys to the provision of a good work-study program. One is the actual experience itself--what is the student given opportunity to do? What is he required to learn and demonstrate? The answer to these questions comes with experience in the program. The program directors need to remain alert to this matter and to revise the program as needed.

A second key to the provision of a good work-study program is the kind of supervision which the student is given. Supervision is not just "bossing" another at work. Rather, supervision is helping another 1) to see what he is

attempting to do, 2) understand what he is actually doing, and 3) comprehend ever more fully both why there is not a perfect correspondence between the two and how a better correspondence can be brought about through his own learning and effort. In addition, the supervisor has a unique opportunity to deal with the problems of the student's integrations of theory and action in direct relation with his tasks or job.

The third major key in the effectiveness of good work-study programs is the student himself. The student must be helped to 1) want responsibility for his work, including responsibility for mistakes that he may make in his work, 2) accept the consequences of making such mistakes, and 3) be willing to discuss, plan, and try again in effort to do better a second time what he and his supervisor come to agree was not done as well as could be expected the first time. The student will receive maximum benefit from the work-study program only when he can assume this responsibility and, in so doing, be in a position to learn most about himself.

It would be easy, because of these conditions, for the supervisor to leave blame for failure of comprehension or performance with the student himself. But blame does not always rest with the student alone; blame sometimes is due to: 1) the situation which was arranged, 2) the supervisor in the situation, or 3) the interaction of situation, student, and supervisor. Work-study coordination and/or counseling involves the skillful application of this understanding. Coordination or counseling in work-study efforts must, therefore, be directed toward the program, the situation, the supervisor, and the student in combinations in which positive effects will actually occur.

The Study Activity within Work-Study. There are four basic functions of the study aspect of work-study experience. Basically, these study activities provide opportunities within the student's regular academic program

for the student to acquire information, skills, or ideas related to his work experience. The four functions are orientation or preparation of the students for the work experience; assisting the students with career goal formulation; assisting the students to explore a variety of occupations; and assisting them to identify and resolve their concerns or needs relating to their work experience. Each of these functions is described in detail below.

1. *Preparation for Work Experience*. As has been said, the student has to "put it all together" during his work-study experience. At work, knowing is no longer just something which another expects of you. Rather, knowing becomes something which has to be demonstrated. The student must address himself to the situation in which a product is being created or a service is being provided. The student is expected to participate effectively in creating that product or service. But the critical part of the student's transaction at this time is the fact that he can no longer "fake it," he must do it. And the student must perform under circumstances in which it is relatively obvious from minute to minute whether or not he is doing the task, an obviousness which is apparent to those under whom he works as well.

   The instructional manager responsible for the study part of a student's effort in a work-study program must, therefore, see that the student is oriented to the integration of theory and action which he experiences, or can experience, when he is at work. This orientation can be done abstractly, that is, in teaching about the feelings and obligations and reactions which are likely to be experienced by the student in the work situation. It is much better, however, to attempt work preparation in simulation of the work-study situation. In simulation, the student can experience many of the impressions he is likely

to encounter at work but he can do so under circumstances where his failures are not accompanied by dire consequences. Presumably the simulation will be clever enough so that many of the impressions of disgust and despair associated with failure will be experienced by the student upon failure. The experiencing of these feelings in simulated rather than in real circumstances will give the instructional manager good opportunity to counsel the student on his reactions and to advise the student about missing background or misguided psychological responses, thus making student needs evident to the student as well as to the instructional manager. If needs are apparent to the student, a big gain has been made toward empowering him to correct them.

2. *Career Goal Formulation*. The portion of the EBCE curriculum designed to assist students to formulate career goals needs to be a systematic effort permitting individual goal selection, highly individualized educational activities, and student participation in the evaluation of his attainment of his goals. Project PLAN (Program for Learning in Accordance with Needs) is an illustration of such a curriculum (Flanagan, 1970). In PLAN a series of teaching-learning units are made available in each of several subjects and the student and his instructional manager collaboratively go over possibilities and arrive at a plan for the next study steps. Testing follows each unit, and a filing and reporting system is available which keeps track of and reports the progress of each student.

   An integral aspect of PLAN is direct instruction in decision making about educational selections. This is augmented by instruction in vocational decision making. The latter is designed to inform a person about

vocational options that are related to his aptitudes and interests and to help him form vocational goals and plans. Instruction of this nature, whether from Project PLAN or otherwise, ought to be a part of the pupil personnel services organized in EBCE in conjunction with the work-study program.

3. *Occupational Exploration.* As a person starts to think about vocational goals and to make vocational plans, he has need for exploratory vocational activity and for information relevant to the questions he then activates in his mind. The work-study program in EBCE, therefore, has to be organized so that work-study arrangements can be somewhat varied to satisfy exploratory needs. In addition, the facility ought to have a career resources center organized so that occupational browsing and informing can go on at the student's will. San Diego County Schools has a well-functioning Career Resource Center of the desired kind which stands as a good example of what will be needed. The program should see that simulated work experience and guidance in vocational decision making are available and used as well.

Edward Gross (1966) has offered a sociologist's view of what needs to be achieved in the way of career skills for adequate functioning in the modern world. He advocates that the career curriculum include instruction and supervised practice in the following four areas:

a. preparation for life in an organization

b. preparation for a set of role relationships

c. preparation for a level of consumption

d. preparation for occupational career

The curriculum associated with job exploration in the work-study program ought to emphasize the above four topics. We have already emphasized the

fourth area, preparation for occupational career. However, it should be noted that Gross suggests preparation for occupation (a group of related jobs), not a simple, specific job. The career skill which pupil personnel services need to foster is that of giving a person general capacity in a number of jobs (an occupation), not just a specific capacity for an immediate next job.

4. *Identification and Resolution of Student Concerns/Needs*. Frances Fuller (1969) has organized an extensive program around the concerns of students becoming teachers through instruction, practice, and internship. Fuller's Teaching Concerns Model assumes that the students, during their three years of undergraduate preparation for becoming a teacher, go through three main cycles or stages of concerns arousal and resolution as follows:

   a. concern about self;

   b. concern about self in role; and

   c. concern about students being taught.

   Fuller has extensive data suggesting that students must be secure in themselves before they can begin to think about the teaching role they are beginning to fulfill, and only then will have sufficient leeway in their self concerns to cast their attention to the mystery of the teaching role itself. Finally, the student has to become somehow relaxed about himself being a teacher before he can really give relatively clear attention to how he comes across to the pupils he in turn is teaching. In short, you have to feel secure and capable before you can give very much of yourself to the further perfecting of your efficiency itself. At their Texas Center for Research and Development in Teacher Education, Fuller and her colleagues have succeeded in turning

around the curriculum for teacher preparation in several teachers' colleges with their model and their extensive proof of its validity. As they did so, they succeeded in developing a system in which 1) concerns levels can be determined, 2) students can undertake prescribed activities to resolve their immediate concerns, and 3) the teacher can at the same time also start arousing the concerns of his students at the next higher level.

Although Fuller's Concerns Model is developed in terms of becoming a teacher, it is quite likely to be generally applicable to becoming a fuller person through a work-study program as well. The work-study program should, therefore, pay careful attention to having a system akin to the teaching concerns system available and in use. Unfortunately, no exact replica exists for the host of occupations which will be encountered in the EBCE model. The Comprehensive Career Guidance System (CCGS) (Jones, Nelson, Ganschow, and Hamilton, 1971) offers an approximation which deserves careful scrutiny as the operator of an EBCE model gears up to offer a work-study program. The CCGS features a set of needs statements categorized into the area:

a. vocational
b. educational
c. personal-social
d. academic-learning
e. citizenship
f. leisure

The student can take one or more of these sets of needs and indicate which he wants to work on as needs requiring his immediate resolution. The CCGS then offers a set of teaching-learning units (TLU's) keyed to

the selected needs statements. The TLU's focus on specific objectives and teach the student to engage in a goal-selection, plan-act-evaluate loop to resolve his needs. Tests keyed to the behavioral objectives additionally provide student and counselor with means of ascertaining when a needs area has been resolved.

The CCGS is thus a sort of "main-frame" system, to employ a computer simile for a computer-involved but not computer-dependent system. The needs statements with their associated TLU's and tests provide a resource which a user can adapt quite readily. The CCGS also builds in a consultation between its authors and its users regarding the implementation of the system. This consultation exemplifies and parallels the goal-selection, plan-act-evaluate cycle which the elements hung to the CCGS "main-frame" are designed to achieve for students working on the selected needs areas. The users are in turn encouraged to employ this consulting or counseling procedure with those students.

Obviously, the CCGS will not provide all that pupil personnel services in the work-study program will need in the way of systematically attending to 1) formulating goals, 2) providing work situations in which they can be realized, and 3) encouraging student activity expected to be purposeful while helping their students comprehend the expected purposefulness. However, the basic elements are there. The work-study program will have to deal with a succession of job supervisors. These supervisors will need a system of consultation akin to that inherent in CCGS. The work-study program is designed to help students themselves to deal with purposeful living as they are encouraged and taught to take up work with a purpose. The elements of CCGS will be a part of what the students need to learn. It can be learned

and undertaken individually. It will resolve many of the kinds of goals which preparation for Gross' social goals requires. CCGS, or a program of that type, therefore ought to be considered very carefully by a person designing and planning to operate an EBCE Model.

Function of the Work-Study Coordinator. The coordinator of work-study arrangments will have three responsibilities in conjunction with a student's employment. First the work-study coordinator or counselor will need to see that the student is oriented to and/or instructed in the integrated task of directing action by thinking. Second, the work-study coordinator will have to see that opportunities for work-study, as compared to opportunities for work, are created and also provide the variety and chance for learning the career skills of purposeful action which are needed in turning work into a sound monetary livelihood. Third, and finally, the work-study coordinator will be dealing with students as a part of the triangle of 1) their instructional manager, 2) their work supervisor, and 3) themselves. The primary responsibility of the work-study coordinator is to assist the student to receive maximum benefit from the program. The work-study coordinator must, therefore, be prepared to deal case by case with situations in which the instruction, the supervision, and/or the student may be in an interaction self-defeating for the student, non-instructional for him, and/or harmful to him. The work-study coordinator must aim for satisfactory resolution of such instances, case by case. Sometimes advising will be necessary; sometimes instruction will be necessary; sometimes counseling will be necessary; sometimes situational reconstruction will be necessary; sometimes combinations of the above will be required. But at all times, patience, wisdom, and hard work will be necessary. The work-study coordinator-counselor has opportunity to give counseling and career intentions their best chance to work, a

chance in which he counsels while the student is himself actively experiencing advice and supervision from his work supervisor.

In conclusion, then, the work-study program will achieve its goals when the job supervisor actually sees his task as that of helping the student to integrate theory and action in relation to the specific job; when the instructional manager prepares students for work experience; when the curriculum contains the necessary provision for goal formulation, occupational exploration, and identification and resolution of concerns, and when the work-study coordinator is really able to help the student understand both his striving and his efficiency in ways such that he can grow in his ability to comprehend his own becoming. Education (doing/being) and the process of education (becoming/growth) thereby become one in the mind of the student. The student is able to see learning as an aspect of becoming and, the program emphasizes, expects and achieves this integration.

ORGANIZATION MODELS FOR PROVIDING A WORK-STUDY EXPERIENCE

There are three principal ways in which employers can organize in providing Employer-Based Career Education:

1. centered in one firm;
2. as a consortium providing a learning resource center as the hub of a wheel related to a set of organizations as its spokes; and
3. as an interactive consortium.

Single Firm

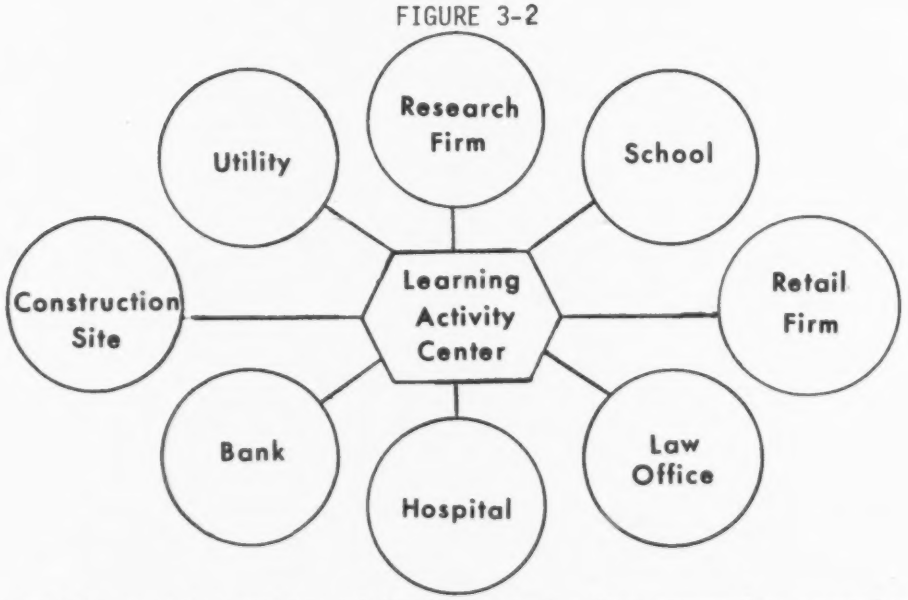
This program is characterized by being operated by a single firm, with both work and learning experiences conducted within the firm by its employees. The

firm would probably have to be at least of moderate size although there is nothing except economy which dictates such an expectation. A small firm willing to incorporate learning while doing into its operation could do the job as well as a large one. However, overall administration of too many small operations would probably gradually tend to cause elimination of small operations.

Consortium: A Resource Center with Outposts

This model is characterized by the following schematic with names attached to firms for purposes of illustration, not in inflexible determination:

FIGURE 3-2



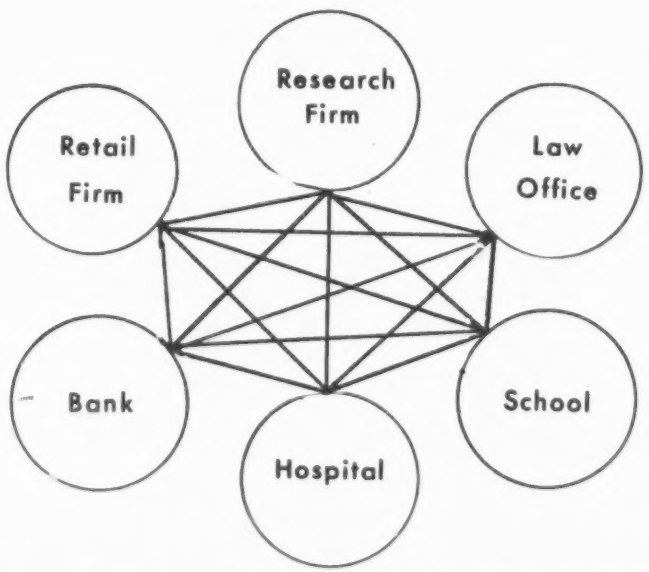
In this model, a wide variety of business and other community agencies are brought together in a consortium providing the program. In addition, a separate, centralized learning center is presumed to be established and run by the consortium. Off-the-job activities such as classes or seminars are conducted in the center but by agency staff members. There would be a steady flow of students between the center, or "home base," and the various outposts, reflecting the various exploratory and work sampling activities. However, there would still

be an essential physical separation of study from work. In this regard the consortium would be no different from schools presently offering work-study programs like those first outlined. However, the "wheel" consortium necessarily has one essential difference which makes it a non-school program: it must be run by all its members, not just by its learning resource center.

Consortium (Interactive)

This approach also is based on a consortium of organizations, with relative freedom of movement among them.

FIGURE 3-3



Both work and study activities will be conducted within individual agencies, but a variety of options (agencies) would be available to the student. This arrangement really gives the student a better chance to integrate study and work. It also gives the work-study coordinator a better chance to get good work supervision as will be noted in the next section.

WORK-STUDY COORDINATION IN EACH OF THE ORGANIZATIONAL MODELS

The primary condition which the work-study coordinator seeks in EBCE Models is that of a well-supervised work experience in which his students can receive a maximum amount of responsibility while optimizing the possibility that each can learn while doing--both learn about the job he is doing and learn about himself working. In order to learn about the job for which he is responsible the student should have opportunity to work in it over an extended period with frequent opportunity to discuss his work with his work supervisor. On the other hand, in order to learn about himself while working, the student needs opportunities to question his work on the particular job he is doing. He also needs the opportunity to move from job to job so that he can learn about different work styles on various jobs and so that he can get a sense of--and practice in--the career skill of personal progress through work.

In addition to wanting responsibility and variety in the work situations in which his students are educated, the work-study coordinator wants a situation in which he can bring instructional managers and work supervisors together for hard-headed talks about the conflicting demands which each makes on the time, knowledge, and effectiveness of the students in his charge. Although any coordinator worth his salt will realize that integration of study and work can be achieved only by the student himself, the same coordinator will also realize that some effects advantageous to his students' achievement of the desired integrations of study and work can be achieved both by the instructional managers getting a better sense of who the work supervisors are and what problems they encounter with the students at work, and by having the work supervisors get a better sense of what difficulties instructional managers encounter in their

instruction of those same students. Frequently, relationships between both types of personnel and students are improved when the students recognize that there is mutual understanding of both work and study situations by all staff. Knowledge of each other's goals and the indications of friendly familiarity with the totality which this gives to the student provides that easing necessary to help him feel comfortable and responsible in the two situations which he must bridge even though those responsible for each seldom converse.

The provisions of conditions under which the goals of pupil personnel services can be met in work-study arrangements are likely to have different effects in each of the three kinds of EBCE organizational models outlined in the previous section. In Model 1 (The Firm-Centered Model) the work-study coordinator will be an employee of the firm as well. The firm is likely to see that work and study must go hand and hand. The firm is, therefore, also likely to realize that the work-study coordinator needs the status and authority commensurate with the necessity of bringing instructional managers and work supervisors together.

Such status and authority are less likely to be awarded in either Model 2 or Model 3 (The Consortia Models). The principal figure in the consortium is likely to be the person who got the money together for the consortium. This person is likely to serve as the substantive designer and manager of the project as well. He will probably realize the importance of incorporating work positions for the students into his organization and for getting good instruction for the students. But he will be less likely to understand the dilemma of the student in bringing the trappings of the worlds of academe and of work together. He is, therefore, not likely to give as much status and power either to the student or to his ombudsman, the work-study coordinator. Because of this, the coordinator will probably find it more necessary in

Models 2 and 3 than in Model 1 to work by personal influence than by authority with his instructional manager and work supervisor colleagues. Any work-study coordinator who fails to work primarily by personal influence rather than by authority will find himself and his interests quickly frustrated. However, there are times when a little bit of authority can go a long way to getting something considered, discussed, and settled. The coordinator needs that little bit of authority. Directors of both consortia models should, therefore, take pains to see that the cause of integration is served well in the organizations or work-study coordination by giving their coordinators adequate status and authority.

The principal task of work-study coordination evolves around keeping the educational partners in the endeavor informed about each other and then mediating the disputes about ends, means, and time allocations which almost naturally ensue. There is always more to study than a student will ever know. There is always more work to be done than a student has time to accomplish. The finite nature of the student's time and his interests create conflicts of interest between instructional managers and work supervisors. The curriculum and its time organization will have a great deal to do with the nature and amount of time disputes which arise in the coordinator's work with the instructional managers and work supervisors. However, there will still be disputes and there will still be the need for decision by the director of the program or by the work-study coordinator if some of the director's authority is delegated to the coordinator. In Model 1 the coordinator is likely to have authority as indicated above. However, he will be in a potential conflict with production schedules in his firm and the managers of production will put pressure on their work supervisors to make instruction as efficient as possible. This pressure is likely to be felt by demands for regular hours and large segments of student

time at work. It will also be manifest in desire to keep to a minimum, probably one, the number of work stations through which a student can have a work experience.

The pressure between study and work for student time will have different effect in the two consortia models than it has in the firm model. In the second model (Wheel Consortium), the work-study coordinator will have to work more on picking work placements for his students. He can use his knowledge about various work situations to fit them to the students' needs. He will also have greater flexibility in securing multiple work assignments for his students. On the other hand, Model 3 (Consortium Network) is likely to offer the work-study coordinator less flexibility in his placement of students than he would have in Model 2 and will also further limit the number of different placements he can get for a particular student.

What ordinarily accrue educationally from the consortium network are improved communication among instructional managers, work supervisors, and work-study coordinators as well as greater opportunity to select and educate work supervisors in the subtle arts of supervision for personal integration in students. These benefits generally happen because each partner in the consortium has a vote in its operation. Instructional managers, work supervisors, and work-study coordinators, therefore, ordinarily have a way to get things discussed at the management level by introducing items into the agendas of those discussions through their representatives. The process takes time but it frequently works.

The process of improving supervision usually brings additional costs as well as improved supervision. Supervision is an art neither common in practice nor easy to achieve. Therefore, the demands of pupil personnel services in work-study coordination generally move forward the desire for good supervisors

and good supervision in the consortium. These conditions traditionally are bought at the expense of having to make the supervisors full-time educational employees and giving them a greater voice in the educational affairs of the program. It also leads to training sessions for supervisors and to desires for their increased status in the educational program. The result is that the student begins to get a better education but it tends to become more regularized and longer. These conditions give rise to the limitations on flexibility in placement and lowering of work situation variability noted above.

In short, supervision is the bane of the work-study coordinator's existence. He needs good supervisors, he needs a variety of work situations for his students, he needs flexibility in their placement; but good supervision is bought by stablilizing work flow and variety. The work-study coordinator has to know these facts and work with them in the several different kinds of possibilities he will have with the EBCE models.

In summary, we have noted that:

1. Model 1 (Firm Model) gives the work-study coordinator greater status and authority and thereby helps him get access to work opportunities. However, the opportunities are likely to be limited to those places where the production members of the firm think that they can benefit from unskilled labor in quantity. Also, supervision becomes a problem because the work-study coordinator lacks leverage in this model to change supervisors or to rotate his students among positions.

2. Model 2 (Wheel Consortium) ordinarily does not provide the work-study coordinator with as much status and authority as he has in Model 1. In addition, the wheel-like nature of the arrangement ordinarily means that the coordinator does not have too much leverage to turn up new

jobs for his students. However, among the jobs available to him he ordinarily has greater flexibility in student placement and greater opportunity to give his students multiple job placements in the course of their education.

3. Model 3 (Consortium Network) ordinarily gives the work-study coordinator only as much status and authority as he would enjoy in the wheel consortium. On the other hand, the closer relationship among the instructional managers, work supervisors, and work-study coordinators gives the work-study coordinator in the network consortium more leverage than in either of the other models to improve the supervisory functions in his network of work supervisors. This improvement is ordinarily bought at some cost to both keeping the work situations fresher and making the opportunities for a given student more varied, although the opportunities are still likely to be greater in this model than in the firm model. The improved communication possible in the consortium network model also generally leads to information overload and this causes work supervisors to feel that they ought to supervise full time. The tightness of the network as it develops furthermore means that the general size of the program begins to get limited. A fraternity or club tends to arise among original members and others find it difficult to get in. In addition, the network itself begins to find increasing difficulty in securing paid internships for its students. Therefore, the entropy of the network model tends to increase because of its "weight;" that of the firm model tends to increase because of its concentration of authority; and that of the wheel model tends to increase because of lack of interest or authority.

It takes courage, money, and a lot of good luck to coordinate a good work-study arrangement. Nevertheless, the effort must perpetually be made. It is the best way to help adolescents mature. Immature adults, along with impetuous youth, are tearing our society apart. Raising maturity through the further maturation of career skills in work-study programs is, therefore, essential. The EBCE models show high promise of helping in this regard. Those who organize and operate EBCE models merely need to keep their eye on some of the potential defects inherent in each of the three organizational models presented. Each has its advantages and disadvantages for supporting the pupil personnel purposes in career education.

Chapter IV : DIAGNOSTIC AND SPECIAL EDUCATION SERVICES IN EMPLOYER-BASED CAREER EDUCATION PROGRAMS

STUDENT DIFFERENCES

One of the basic facts of education, regardless of the setting in which it occurs, is that within any group of students there will be vast individual differences. Moreover, as students progress through school the range of individual differences will increase rather than decrease. The scope of individual differences among students is so extensive that it is doubtful that a single educational program could ever accommodate individual needs without making special provisions for students at the extremes of distributions of capabilities. The purpose of this paper is to present in concise form some of the major issues related to providing services in employer-based career education settings for students with special problems.

Special Problems: Defining Characteristics

Special problems may be defined as difficulties associated with significant variations from the average or from a specified standard with respect to individual characteristics. For most types of problems, categories have been established describing how extensive a deviation must be before it is regarded as significant. For example, students with IQ's of 75 or below are described as falling within one of the various classifications of mental retardation. The number 75 designates a position along the distribution of mental ability.

Types and Incidences of Special Problems

For legal purposes, the government uses a number of categories under which special problems can be classified. The designations used here are an adaptation

of categories used by the Bureau of the Handicapped in classifying special problems.

In 1966, a study was conducted by the U. S. Department of Health, Education and Welfare, Office of Education, to determine the enrollment of exceptional students in special programs. At that time it was estimated that 2,106,200 students were enrolled in special programs in the schools. Of this total, 144,100 could be classified as having physical problems. These included 51,400 deaf and hard-of-hearing students, 23,300 visually handicapped students, and 69,400 students who were crippled or had special health problems. Classified as mentally retarded, which would come under the category of intellectual problems, were 540,100 students. Students with learning disabilities are also included under the category of intellectual problems. The National Advisory Committee on Handicapped Children (1968) of the U. S. Office of Education estimated that the more severe cases include from 1% to 3% of the school population. In his book, Educating Exceptional Children (in press), Kirk estimates that at the minimum 1% to 3% and at the maximum 7% of the school population require remedial education. A total of 1,077,400 students were classified as displaying social or verbal behavior problems. These included 87,900 students with social or emotional maladjustment and 989,500 students with speech impairments. In addition, 32,500 students were classified as having other handicapped conditions and 312,100 students were classified as gifted.

Existing Models for Services

Three models are currently in use for rendering psychological services with respect to special problems in educational settings: the diagnosis-treatment model, the behavior modification model, and the consultation process model.

Diagnosis-Treatment Model. There are several defining characteristics which distinguish the diagnosis-treatment model. First, it assumes a dispersion in individual characteristics from normality to abnormality or from healthful to diseased or disabled. The term diagnosis refers to the identification of abnormalities in the individual. Terms such as treatment and remediation are used to refer to efforts to effect a return to health or normalcy. The diagnosis-treatment model assumes that maladaptive overt behavior is symptomatic of underlying dysfunctions. In symptom causation the focus is on variables inside the organism. For example, if a student in a classroom setting were to be observed to be so highly active that his behavior was a marked disruption to other class members, this hyperactive behavior might be taken as one symptom of minimal brain damage. In the event that other symptoms associated with brain injury were manifested, it would be assumed that overactivity was in fact caused by brain injury.

The diagnosis-treatment model does not rule out experiences as a factor in determining individual performance characteristics. However, environmental causes are typically, though not always, relegated to experience which is remote from the immediate situation in which the individual is functioning. For example, aggression in a classroom or work situation might be explained in terms of "Oedipal problems" developed years before.

In the diagnosis-treatment model, hypothesized causes of behavior are divided into elaborate diagnostic categories which label individuals receiving treatment. For example, a student may be classfied as minimally brain injured, obsessive compulsive, schizophrenic, autistic, etc.

The aim of the diagnosis-treatment approach is to provide differential treatment relevant to diagnosis. Such treatment typically is not rendered in the student's education or work setting. It is assumed that diagnostic and

treatment services require skills which can only be found in persons with special training. Thus, the tendency is to remove the student from his natural environment in order to render either diagnostic or treatment services. The implications of removal are particularly important to consider in the case of treatment, since removal from the natural environment may require separating the student from that environment for prolonged periods of time. In the extreme case, institutional placement may be warranted. However, special classes are often set up which permit the student some access to his normal environment. In some cases these classes function for an entire school day and in other instances they operate for only part of the day, allowing the student to participate to some extent in the regular educational program.

The central advantage of the diagnosis-treatment model is that it provides an effective way to identify individuals with special problems. The use of standardized testing procedures, which is frequently associated with diagnostic work, provides an efficient and objective way to identify students who need service. For example, it would be quite easy for a student with a hearing problem to go unnoticed if standardized testing procedures were not used to assess hearing ability. Another advantage of the diagnosis-treatment model is that it provides incidence data which can be used to ascertain the extent of need for special programs. Incidence data were presented as one source of justification for establishing services for students with special problems.

The diagnosis-treatment model has been used for many years in education providing ample opportunity to discover its weaknesses. One of the most unfortunate features of the model is that it often results in the assignment of pejorative labels to students. Being called mentally retarded or brain injured involves social stigma, a problem which is further complicated when students who receive such labels come from ethnic minorities and poverty

backgrounds. Diagnostic labels, however humanitarian their intent, become de facto instruments which challenge the self-worth of the individuals who receive them.

An additional disadvantage is that, when properly used, the diagnosis-treatment approach is frequently expensive both in terms of time and money. The use of the model requires personnel with special training and often special facilities in which to administer services. Also, services are in many cases administered on an individual basis. The high cost of this model's operation often leads to reductions in the scope of services provided to students. Typically, diagnosis is offered in the absence of treatment. While treatment may require long periods of individualized contact, diagnosis usually takes no more than a few hours. Under such circumstances, it is possible for a special services component to appear as though it is rendering extensive services to students; psychologists may report having serviced hundreds of cases during the course of a year in situations where service is limited to diagnosis. Clearly, diagnosis without treatment is of no value to the student, yet countless students have received diagnostic service without benefit of any kind of related treatment.

Another major drawback of the diagnosis-treatment approach is that the diagnostic categories used to label individuals may not be relevant to the immediate problem presented. For example, a disruptive student, whose specific behavior in a classroom poses a serious problem for the student, his classmates, and the instructor, may be diagnosed with a label relating to his early childhood experiences. Such a label will have nothing to do with the student's current behavior in the classroom. A further objection to this approach is its measurement emphasis on problem identification rather than on problem solution. Standardized instruments are used to describe what is wrong with the

student, but instruments are lacking to demonstrate that the educational problem presented by the student has been solved. A final handicap of the diagnosis-treatment approach is that intervention is often limited to special settings, for example, special classes or clinics. The use of special settings not only deprives the student of the experiences which he would have had in the natural setting, but also raises the question of whether treatment gains demonstrated in altered environments will transfer to the regular educational setting.

The Behavior Modification Model. In the late 1950's and the early 1960's a number of investigators began to apply principles of learning (particularly those derived from the experimental work of B. F. Skinner and his colleagues) to the solution of practical problems in mental health, education, and related fields. These efforts have come to be classified under the heading of behavior modification. This term refers to the study of behavior and its determinants. The focus of the behavior modification model is on devising procedures to alter behavior. There is a strong emphasis on measurement within the model. However, measurement is slanted in the direction of problem solution rather than problem identification. A series of measurements called baseline data are recorded. Then a procedure for altering behavior is introduced. Record keeping continues so that it is possible to observe whatever changes may be associated with the introduction of the procedures selected to produce behavior change. In classical applications of the behavior modification technique, the intervention program is withdrawn in the expectation that behavior will return to its baseline level, and then reintroduced so that the desired alteration in behavior is once again effected. This double installation of the intervention program provides strong supporting evidence that changes in behavior resulted from the intervention program and not some extraneous influence. In applied settings it is often impractical to use the double intervention procedure, and recently other techniques have been advocated in its place.

Intervention programs within the behavior modification model are designed on the basis of consideration of those factors in the immediate environment which might act as determinants of behavior. In this emphasis upon immediate rather than remote causes of behavior, the behavior modification model marks a significant departure from the diagnosis-treatment approach.

Consequent events play a particularly important role within the behavior modification approach. The lion's share of B. F. Skinner's research was dedicated to the study of the effects of variations in consequent conditions on behavior, and initial attempts to use behavior modification in applied settings often failed to make use of variables other than consequent conditions.

Initial applications of behavior modification procedures took place mainly in clinical settings. Consequently, terms such as behavior therapy have attained a rather wide usage within the model. However, from its inception, behavior modification has represented a reaction against the assumption that individual characteristics ought to be conceived in terms of a dispersion from normality to abnormality, and there has been some movement toward abandoning all clinical terminology - to do away with terms such as remediation and treatment and replace them with labels such as training, education, and instruction.

Along with the abandonment of the clinical stance vis-a-vis behavior change, there has been a lessening of emphasis on the use of personnel from the field of psychology to administer behavior modification procedures. Many projects have been developed in which teachers and others have been trained to use behavior modification procedures under the supervision of specialists.

There are several advantages to the behavior modification model: first, the model utilizes immediate environmental conditions which are readily subject to manipulation by a change agent and which research has shown to be effective means for changing behavior. Secondly, objective evidence is provided, demonstrating the effectiveness of the behavioral change program. The evaluation

emphasis on problem solution rather than on problem identification tends to make the model accountable to the students whom it is designed to serve. Another advantage of the model is that it does not make assumptions about normal or abnormal behaviors; thus, people receiving service within the framework of the model are not labeled. Still another advantage is that the model minimizes demands for special facilities and specially trained personnel.

Standardized diagnostic instruments are usually not used within the behavior modification approach. The absence of comprehensive screening devices within the model for identifying special problems makes it useless in identifying overall needs for services within the school setting. Another disadvantage of the approach is that the range of psychological principles used within it has been limited. The extensive emphasis upon influence of consequent conditions on behavior has been overemphasized at the expense of investigation of the influence of other variables of known importance. This, of course, is not an inherent disadvantage of the approach, as is evidenced by the fact that modification programs are currently expanding the variety of psychological principles used in effecting behavior change. The procedure's third drawback is that it often does not make provisions for concretely defining the problem to be solved. It does objectively demonstrate behavior change, but in many cases it is not clear whether the behavior change in question is related to the concerns of the student or instructor requesting services. In the extreme case, a psychologist may design a program to solve a problem without consulting the teacher or student to determine whether or not they want the problem solved. Again, this is not an inherent disadvantage of the approach; it would be quite easy to provide concrete procedures for specifying problems in advance of providing services.

The Consultation Process Model. Within the consultation process model, the psychologist provides services to a change agent (e.g., a parent or instructor), who in turn works directly with students to change behavior in the desired direction. Like the behavior modification model, the consultation model attempts to identify determinants of behavior in the immediate environment. Consideration is also given to skills which might influence behavior. Environmental determinants within the model are divided into three categories: antecedent variables (i.e., those conditions occurring before the behavior to be changed), situational variables (variables such as the number and arrangement of stimuli, time of day, etc., which are an inherent part of the situation in which the behavior under study occurs), and consequent conditions (those variables which occur after the behavior has occurred). As in the behavior modification model, objective measurements of baseline and modification data are made in order to reveal the effects of behavioral change programs. However, no assumptions are made about normality or abnormality and thus there is no labeling of clients. Terms such as training modification and instruction are used to designate behavioral change programs. In contrast to the behavior modification approach, concrete procedures are established for defining in behavioral terms the problem under study. Additionally, a specific set of verbal behaviors is used by the psychologist as a vehicle to make psychological principles available to change agents in the solution of behavior change problems.

Advantages include the absence of labeling, the use of a broad range of psychological principles to the solution of behavior change problems, and the consideration of antecedent and situational conditions as well as consequent conditions. Since the problem under study is defined in behavioral terms before procedures to change behavior are devised, there is every likelihood that the

approach will be relevant to the problem presented. Like the behavior modification approach, this model provides objective evidence demonstrating the effectiveness of behavior change programs. It can also be applied directly to the instructional environment without special facilities and with non-specialists. A final advantage of the approach is its provision of a set of concrete procedures for communicating with change agents who are given the responsibility for carrying out behavior change programs. Change agents are assisted in specifying, in concrete terms, problems which concern them and then are given techniques for translating into concrete plans implemented within the natural environment of the student those psychological principles which might be used to effect behavior change.

As the consultation process model is currently used, there is little emphasis on standardized testing; thus the model has not been particularly useful in providing incidence data which might be used to identify students with special problems. However, there is nothing in the model inherently antagonistic to testing for identification purposes, and provisions have been made for incorporating standardized procedures for identifying problems within the framework of the model. A second disadvantage of the model is that services are implemented on a referral basis only. Thus, students may be deprived of services because those with the power of referral have not exercised that power.

Alternative Methods for Initiating Services

The Referral Method. There are currently two basic ways in which services can be initiated for students with special problems. The most common procedure is the referral method, in which services are initiated by request from parents, students, instructors, and other educational personnel. Its advantages are that

the method does not require costly comprehensive diagnostic testing of all students, and that students are not identified for service unless their classroom or job behavior reveals the need for service. Disadvantages of the referral method include the fact that informal observation may result in overlooking some serious problems and that the determination of whether or not a student will receive services can be controlled by the attitudes of persons given responsibility for making referrals. For example, if an instructor is typically the individual assigned the responsibility to make referrals for special services, his capability and proclivity to recognize problems requiring service will determine whether or not a student will receive service.

Assignment to Service on the Basis of Standardized Testing. A second method of initiating service is to conduct broad-scale standardized testing. For example, program-wide testing is frequently used to identify students with hearing problems. It is also, upon occasion, used as a preliminary screening device for diagnosing mental retardation. The central advantages of the program-wide testing approach include the fact that there is little likelihood that problems in the category areas tested will be overlooked, and that standardized instruments and qualified individuals identify student needs for service. The procedure's significant disadvantage is that broad-scale testing is costly and inefficient, requiring diagnostic instruments to be administered to all students regardless of need.

Loci of Diagnostic and/or Special Education Services

Special Classes. As indicated in the discussion of models above, it is common practice in providing special services for students to set up special classes in which students who have similar special problems are grouped

together for instructional purposes. Special classes typically have the advantage of being smaller than regular classes, which may make it possible to increase individual attention to students with special needs. Within a special classroom setting it is also possible to devise a specialized curriculum and make use of an instructor with related special skills. Disadvantages of the approach include the fact that there is often a stigma associated with special class placement, that the student may be deprived of interaction with students in regular program classes, and that special class placement may produce segregation by race or social class. Such special classes are expensive to operate, and changes in behavior effected in a special class setting may not generalize to other settings. A final disadvantage is that a substantial student population is required in order to have enough students to form special classes.

Temporary Institutional Placement. Another procedure sometimes used in handling special problems is that of temporary institutional placement. Institutional placement makes highly specialized services available to the student, and opportunities for individualizing treatment may be enhanced by placement. If a student is a threat to the physical, social, or intellectual well-being of others, his institutionalization also serves to protect them.

There are a number of disadvantages to institutional placement: there may be a social stigma associated with institutionalization; as in the case of a special class placement, behavior changes effected in the institutional environment may not generalize to other settings; and institutional placement requires virtually constant care of the student and is thus extremely expensive.

Intervention in the Instructional Environment. As specified in the discussion of the models above, programs which offer special services in the instructional environment of the student are available. Services may be administered in the classroom or on the job. The likelihood is high that services rendered

in this way will be relevant to the problem presented, and the dangers associated with social stigma avoided. The formidable problem of generalizing behavior acquired in institutions and special programs to the regular classroom/job situation is circumvented. Furthermore, it does not require a large student population, extensive use of specially trained personnel, or special facilities, all of which lead to the relative inexpensiveness of this approach. Despite its advantages, intervention in the instructional environment may not always be appropriate. Some problems require specialized treatment facilities or specialized skills which instructors or supervisors may not have and may not be able to acquire readily.

Intervention in the Home. In some cases it may be useful to provide special services in the home setting to eliminate at the source the many special problems fostered and maintained in the home environment. Working in the home can foster an increase in understanding of, and support for, educational efforts on the job or in the school. Finally, special services provided in the home maximize opportunities for individualized training. The central drawback of home intervention is that there is little opportunity to control the quality of intervention. Parents, the typical intervention agents in the home, may not have the skills required to undertake a training program in an effective manner, and cannot be held accountable for the quality of their intervention efforts.

Alternative Sources of Service

Several options are open to an institution operating an educational program with respect to obtaining adequate psychological services. Each of these options has advantages and disadvantages. The attractiveness of one option over another will to some extent depend upon the character of the overall educational program for which services are being rendered.

Employer Operated Special Service Programs. An employer may include a special service division as part of the overall educational services provided in the career education program. This division would be designed, controlled, and implemented by the employer, allowing him to maintain direct control over the type and quality of services offered.

The disadvantages of the approach center around its potential inefficiency and costliness. There would be some pressure to maintain services continuously regardless of variations in needs over time. This might be particularly critical in small programs where the number of problems encountered in any case would probably be quite limited, rendering it uneconomical to maintain a full-time special service staff.

Referral to Community or State Agencies. In virtually all states there are a variety of community and state services set up to handle many of the types of special problems which exist in students. Thus, another option open to the operator of an employer-based career education program would be to obtain psychological services through community and state agencies. Since the only personnel required by the employer would be a diagnostic staff to make referrals to appropriate agencies, this approach would be very inexpensive. However, community and state agencies are typically understaffed and overworked, often resulting in a long delay between the time service is sought and the time it is received. Furthermore, lack of staff to meet existing needs has forced many agencies using the diagnosis-treatment model to adopt the stance that treatment will be offered only in the most severe cases. Furthermore, the employer would not have control over the types of services offered, and the priorities within the employer-based program might not be congruent with the priorities in available community and state agencies. An additional disadvantage of the agency option is that services rendered by

agencies are not always relevant to the problem presented. Because agencies are necessarily removed from the situation which initially generated the referral, they are typically unaware of the problem or problems which prompted the referral, and may concentrate on other aspects of the client's experience.

Subcontracts to Private Firms. A third option would be to subcontract to a private consulting firm. This method is efficient in that services would be provided only when a need exists and would be directed at specific problems. While special services which are components within an institution or community agency have vested interests in maintaining their character as components and may engage in many activities which are not problem focused, a subcontracting firm is not a part of the bureaucracy in which a given program may be imbedded; thus, it is often possible for subcontractors to avoid bureaucratic red tape which might quickly build up in employer-operated services. A second advantage of subcontracting involves breadth of knowledge. Due to the vast scope of the psychological services field, no one individual can possess all relevant knowledge. In a subcontracting firm, a system composed of highly trained specialists embodying a broad range of knowledge can be brought to bear on the solution of special problems. The final advantage of the subcontracting option is that consultant firms can be held accountable by contract to produce specified behavioral changes. It is typically not possible to require community or state agencies to operate in this fashion and there probably would be significant pressures militating against this kind of operation in an employer-based special services program. Disadvantages of the subcontracting option include the fact that at present the number of consultant firms is limited, although growing. Additionally, consultants will lack knowledge of internal problems of program operations, which impairs the effectiveness of their services.

Subcontract to Private Consultants. A final option would be to subcontract for services to private consultants. This procedure shares many of the advantages of subcontracting to consultant firms, but a larger number of individual consultants are presently available. Again, they may be hired on an individual basis only as needed. However, the extent of services would be limited due to limitations in the range of knowledge of individual consultants working alone. As in the case of the subcontracting firm, a lack of knowledge of local internal problems related to program operation could impair effectiveness of special services rendered by consultants. Finally, individual consultants often have limited consulting time.

The above options are by no means mutually exclusive. It would be possible and probably desirable to use a combination of these options in setting up an employer-based career education program.

FEASIBILITY ANALYSIS

Relevant Parameters

A number of options for the provision of psychological services within any given employer-based career education model have been described. This listing of what is available will have to be matched with the specific requirements of each program. There are a number of key variables associated with each overall program of which special services are to be a part which will have great influence upon the character of psychological services within that program.

Overall Program Size. It would be possible to utilize any one of the models previously described for rendering psychological services regardless of program size. However, the manner in which models might be applied will be influenced by size variables. It would probably not be feasible to operate

an employer-based comprehensive special program if the overall educational program were small. Problem incidence for the various special problems identified in the first section of this report would be insufficient to warrant comprehensive special services; even constructing special classes within a small program would be difficult due to insufficient numbers of students displaying similar problems. The effects of initiating services by referral would also be influenced by program size. Because the danger of overlooking a student who needs service would probably be greater in a large program than in a small program, a referral system is most appropriate in a small program.

Size of Instructional Groups Within the Overall Program. In the event that groups of students are convened in large numbers within the overall program, the need for behavior modification and/or consultation type services would probably increase. These types of services provide an excellent way to focus on those needs of the individual student which may tend to be overlooked in large groups. Large groups also increase the attractiveness of the special class option because in most cases the reduced size of a special class allows increased individual attention to students. Finally, large groups may decrease the effectiveness of the referral system.

Extent of Individualization of Instruction. The greater the amount of individualization offered in the regular program, the less will be the need for formal diagnostic services. There will probably always be some need for diagnosis, particularly with respect to physical problems. However, data collected in the course of instruction for each individual student might well supplement most diagnostic testing relating to behavioral problems and problems of ability. The opportunity to make use of behavior modification and/or consultation models also increases as a function of the amount of individualization in

the instructional program. An instructional environment which already represents a significant effort to accomodate individual differences provides an ideal situation in which to apply behavior modification and consultation services. If individualization in the regular instructional setting accommodates special needs, it reduces the requirement for special classes. Automated data recording devices often accompany efforts to individualize instruction. Such devices open up the possibility for including information which might perform the functions of diagnostic testing within the regular instructional program. This possibility increases the attractiveness of initiating special services through program-wide testing.

Budget. In instances in which budgets are limited, behavior modification and/or consultation models are especially attractive because requirements for specially trained and highly paid personnel are kept to a minimum. Budget size also influences the desirability of subcontracting for services; small budgets increase the desirability of subcontracting. Where budgets are limited, intervention in the regular instructional environment will also be a more economical alternative to special services than establishing expensive special classes. Finally, a small budget suggests the desirability of using the referral system rather than system-wide testing programs for initiating services.

Availability of Specially Trained Teachers. Where trained personnel are in short supply, it may be best to rely in the main on behavior modification or consultation process models. As already mentioned, these models do not require as many trained personnel as a diagnosis-treatment model. Subcontracting and agency referral options also become more attractive as personnel availability decreases. In situations in which there are few trained personnel, intervention typically would have to take place in the regular instructional

setting or job situation. Finally, when trained personnel are in short supply, service initiation by referral represents a more practical procedure than initiation by assignment through a broad-scale testing program which demands a great deal of staff time.

Problem Incidence in the Student Population

As can be readily seen from an examination of the figures presented in the first section of this part, there is a wide variation in the incidence of different types of special problems. In situations in which problem incidence is low, the desirability of referral to an outside agency or private subcontractor is increased. In cases of high problem incidence, any of the various methods of obtaining services could be used. However, the subcontracting and employer operated options would have some advantage over agency referral due to such problems as the long waiting periods which often attend services from local and state agencies. When problem incidence is low, it is desirable to intervene in the regular classroom. When few students display a particular problem, it is often not possible to set up a special class setting which will in fact meet their needs. When problem incidence is low, the referral system represents a more practical procedure for initiating service than broad-scale testing.

An Illustrative Model

This section of the discussion of diagnostic services provides an example of how psychological services might be set up within an employer-based career education model. It will be assumed that the program will be sponsored by a consortium involving a number of employers, but the consortium might choose to operate its own program or to subcontract for educational services. Also, the students served by the program might either be grouped in a concentrated

fashion in classes, or they might be dispersed in a wide range of settings such as might result from individual job assignments.

The model chosen for illustrative purposes uses an analytic problem-solving approach, incorporating features from all three of the basic models discussed earlier in this report. The analytic approach deals with referral problems and behavior-change problems. In the course of rendering pyschological services, special services personnel invariably encounter problems which do not fall within an educational domain, but which do require special services normally unavailable in the regular school program. For example, students with undiagnosed vision or hearing problems may be encountered in the course of rendering services. Psychological services personnel must be capable of referring the student to the proper agency or service to handle his problem. In some cases it may be useful for the psychologist to administer diagnostic tests in the course of serving students who manifest problems calling for referral to an outside agency. Under these circumstances, the pyschologist is in essence operating on the basis of the diagnosis-treatment model.

The second type of problem encountered in analytic problem solving is the behavior-change problem, which is defined as the requirement to change existing behavior (called target behavior) to some desired state. The majority of concerns associated with the education of students manifesting special problems are subsumed within the behavior-change category. The task to be accomplished is the design and implementation of an educational program which will enable students with special problems to achieve their goals. Problem solving associated with the accomplishment of this task is analytic in the sense that it requires that the behavior to be changed and the conditions surrounding that behavior be separated into component parts. Such separation identifies

the determinants of behavior which might be used in assisting the student to achieve his objectives.

Analytic problem solving has four stages: problem identification, problem analysis, intervention, and evaluation.

Problem Identification. The purpose of problem identification is to define in behavioral terms the problem to be solved. An educational problem may be defined as a discrepancy between current level of performance and desired level of performance (Kaufman, 1970). Desired performance is established by the specification of behavioral objectives for the student (Mager, 1962). After objectives have been specified, procedures must be set up to measure current level of performance. It is often advisable to measure performance on a series of occasions so that some indication of the rate of change of performance toward the desired goal under existing conditions can be attained and so that the stability of existing performance can be determined. The problem is to eliminate the discrepancy between desired and observed performance.

Problem Analysis. In the event that a behavior-change problem has been identified, problem analysis is undertaken in order to specify potential determinants of behavior which might influence the capability of the student to reach his goal. Behavior determinants are individual characteristics (including skills and abilities) and target conditions (i.e., antecedent, situational, and consequent conditions). A plan must then be devised to manipulate those variables in such a way as to enhance the possibility that the student may achieve his goal.

Intervention. During the intervention phase, the plans devised in problem analysis are implemented. Recording will usually continue during intervention

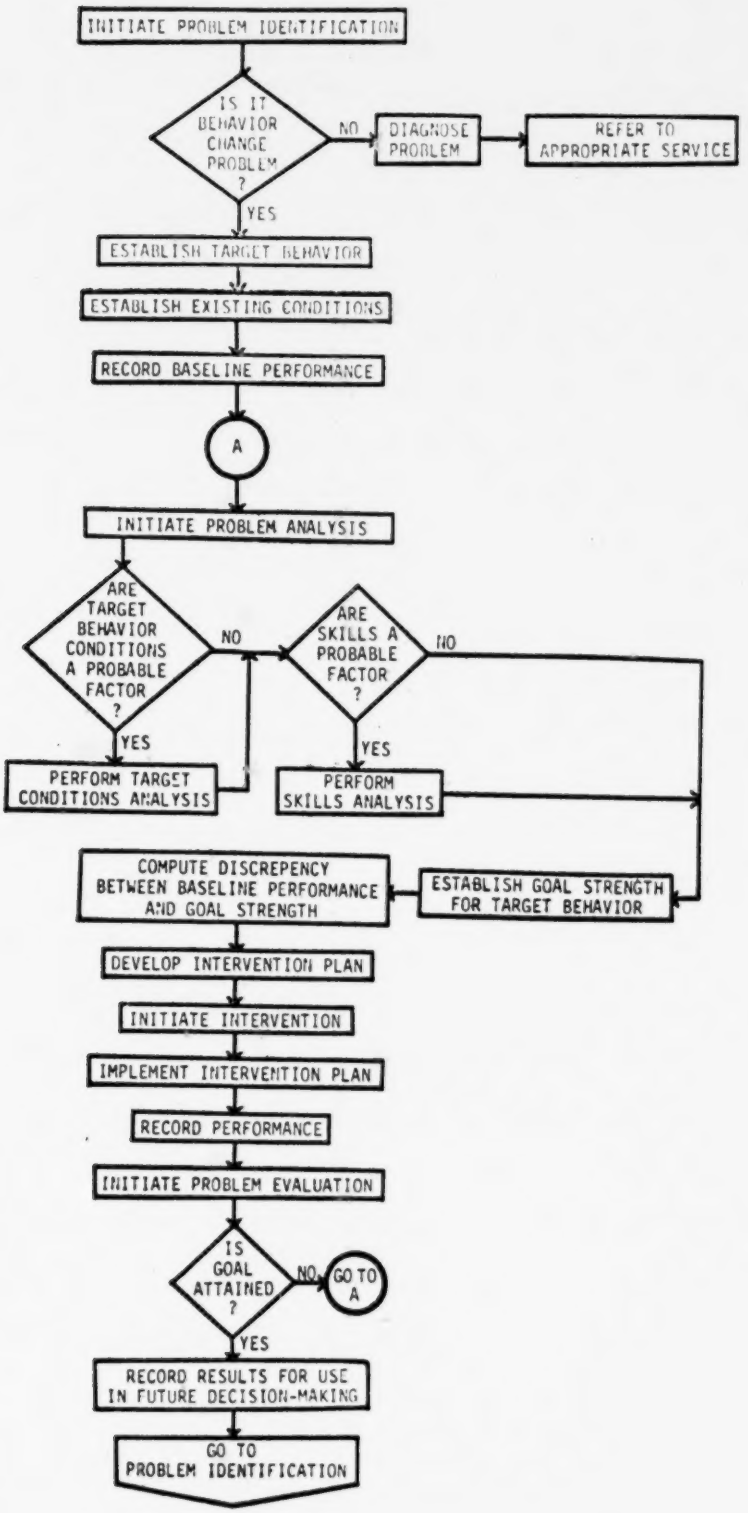
to provide immediate feedback regarding any significant changes in performance.

Evaluation. Evaluation may be used to determine whether or not the goals of analytic problem solving have been attained and also whether or not the intervention procedures used in the problem-solving process have been effective. Evaluation to determine goal attainment may be accomplished by simply comparing performance after intervention with stated objectives identified in problem identification. Evaluation of the effectiveness of an intervention plan may be determined by examining changes in trends in performance between problem identification and intervention. In the event that the goal has been attained, services may be terminated or work on another problem initiated. In the event that the intervention plan has not been successful, problem analysis is reinitiated.

Figure 4-1 illustrates the operation of the analytic problem-solving model in dealing with behavior change and referral problems.

Roles of Personnel Using the Analytic Problem-Solving Model. Psychological services workers functioning within the analytic problem-solving model would act as coordinators of a set of problem-solving teams. Each team would include at minimum a team coordinator from the psychological services component of the program and an educational change agent (i.e., an instructor or supervisor) with direct responsibility for education of the student manifesting the problem. Team coordinators would serve on several teams. Since team coordinators would travel to the various locations in which the educational change agents were operating, if students within the program were widely dispersed, the number of teams on which a coordinator could serve would probably be somewhat less than would be the case if students were concentrated in a few locations. During problem identification, the coordinator would be responsible

FIGURE 4-1
Analytic Problem Solving Model



for insuring that problems were specified in behavioral terms and that recording procedures were made available to change agents and students for measuring current level of performance. In problem analysis, the team coordinator would assist by availing the change agent of relevant knowledge from the field of psychology with respect to antecedent, situational, and consequent conditions and skills and abilities that might have a determining effect on behavior. The change agent, the team coordinator, and in some cases the student, would assume joint responsibilities for devising a plan to attain the desired goal. The change agent and/or the student would assume the responsibility for implementing the plan and for evaluation of the behavior change program.

The roles described above represent a marked departure from the consultation stance advocated within school psychology for many years. The central weakness in consultation is that no one is held accountable for providing services to the student. When consultation is provided to a teacher working directly with a student, the services are initiated only if the teacher wants to initiate them. This increases the likelihood that services will be initiated if the problem under consideration is a problem basically for the teacher, not for the student; if a student manifests a problem which is no problem for the teacher, there is a danger that the problem will be overlooked. The psychological services worker functioning as a team coordinator has direct responsibility to the educational change agent and to the student for providing specific services. Likewise, the educational change agent has responsibility to the student for providing services.

Services would be initiated within the analytic problem-solving approach by either the referral mechanism or the testing mechanism. If the employer-based educational program included provision for individualizing instruction, testing procedures could be built into assessment for the regular educational

program. Criteria might be established which would serve as a basis for setting performance levels which would indicate the need for special services. In addition, special testing programs might be used to identify physical disorders in students. To help those students who would not manifest problems covered by testing procedures, it would be advisable to maintain the referral option as a way of initiating psychological services.

Foci of Intervention Within the Analytic Approach. Intervention based on the analytic approach might take place in any of the settings described earlier in this report. In most cases intervention will take place in the natural environment of the student (i.e., either in the home or in the instructional setting) or on the job. If special class placement were used, this placement would become part of the intervention strategy. Thus, there would be an obligation to maintain data on the behavior of concern during placement. Special class placement, as it has often been used in the educational settings, has in most instances been a mechanism for avoiding accountability to students. Students in some cases have been placed in special classes without any attempt to ascertain the extent to which such placement was effective in moving the student toward desired objectives. The analytic problem-solving approach provides a way to avoid using special placement as a dumping ground for problems which cannot be handled in the regular educational program. Institutional placement on rare occasions might be used as a form of intervention within an analytic problem-solving approach.

Sources of Services. The analytic problem-solving approach could be implemented within the framework of subcontracted services or employer operated services. An analytic problem-solving component could make use of agency referrals particularly for servicing low incident problems requiring highly specialized

skills. It would not be possible, however, to implement an analytic problem-solving approach by relying on agency services alone.

CONCLUSION

The material presented in this chapter has suggested a number of possible ways in which psychological services could be organized within an employer-based career education program. The illustrative model presented in the previous section, while representing only one of many possible alternatives, indicates the possibility of combining features from all of the various models in existence to provide services for students. The specific manner in which any alternative will be incorporated into an employer-based career education program will be influenced by the various parameters discussed in the first part of the feasibility section.

Chapter V: OTHER PUPIL PERSONNEL SERVICES

RESPONSIBILITIES OF EDUCATIONAL INSTITUTIONS

The development of EBCE provides an opportunity to question many elements in the traditional educational process. Before building any of the latter into EBCE, each should be examined to see whether it may be omitted or improved. At the same time, it will be necessary to keep in mind the social responsibility bestowed upon schools; meeting this responsibility will demand that EBCE models go beyond the pupil support services already discussed (guidance and counseling, work experience coordination, and psychological and special education services). Medical examinations, some medical care, and assistance in getting an adequate diet are examples of the kinds of services that society expects schools to provide in addition to a good education if students are to participate effectively in the life of the nation. In part such services (see figure 5-1) are made available to school children because of the effect which their deprivation will have on learning. To a considerable extent, however, they are made available through the schools because a complex, highly developed society recognizes that it must ensure them to its members. Schools, being the institution which touches the maximum number of individuals, are used as the vehicle for delivering them.

Some critics of traditional schools feel that this extension of the schools' responsibility beyond the provision of education has diminished their effectiveness in meeting that prime responsibility. For somewhat different reasons, other critics feel that this increasingly pervasive control of the schools over pupils' lives, especially at the high school level and especially when wedded to the highly structured classroom system, is creating an unhealthy dependency in

FIGURE 5-1

Other Pupil Personnel Services

Services Provided by Traditional Schools Outside of the Area of Pupil Personnel Services and Academic Work

Hobby and personal skill/interest groups
Social affairs
Cultural affairs
Food Service
Transportation
School library
Informal guidance about dress, grooming, and social behavior

Other Pupil Personnel Services Provided In Traditional Schools

Attendance services
Disciplinary processes
Speech and hearing services
Nursing services
Medical services
Social work services

Outside Novel Services Which May Be Required By the Special Nature of EBCE

Protection against criminal, including sexual, exploitation
Protection against excessive hours of work, unsafe working conditions, etc.
Procedures guaranteeing the civil rights of pupils

some young people, a rebelliousness in others, and an uneasy mixture of both in still others. EBCE models must strive to balance the potential for allowing new modes of learning and greater student initiative against the undesirable elimination of socially necessary services not yet available to children from any institutions except schools.

It is presumed that any consortium of employers undertaking responsibility for EBCE must demonstrate an acceptable plan for jointly providing the services noted below in facilities they control and by personnel in their employ--or a satisfactory rationale for not providing a specific service. Since EBCE is visualized as a system of education completely independent of traditional schools, the latter must not be relied on to supply support services to consortia.

THE DOMAIN OF ADDITIONAL SERVICES

Other Pupil Personnel Services Provided in Traditional Schools

Attendance services cover both child accounting (records and files of admissions, transfers, and discharges), activities to control truancy and drop-out rates, and activities which overlap with social work. EBCE employers will be expected to account for the attendance and absence of pupils, augmenting the process by which they do so for regular employees by whatever additional mechanism is needed to comply with school attendance laws. This can be expected to require close and perhaps somewhat burdensome coordination with other members of a consortium, since a student may legitimately be at any one of several companies or in transit.

To some extent, employers may control truancy in the same manner by which they control absenteeism of regular employees. Sanctions for excesses must be

carefully devised, however. School attendance laws may prevent the use of discharge as the ultimate disciplinary action for students. There must certainly be provisions for bringing truants to the attention of counselors and psychologists sufficiently early to attempt corrective action.

The disciplinary process beyond normal classroom corrective action is usually considered a counseling function but it has deliberately been excluded from the discussion of that pupil personnel service in Chapter II of this report. Some unacceptable pupil behavior can be treated by the same process used to deal with regular employees. Employers must be required to set forth a plan for dealing with behavior not amenable to this treatment. For example, at the point at which situations go beyond the authority of the line managers to handle and would normally be brought to the attention of the personnel department, notification of persons responsible for diagnotic psychological services (see Chapter IV of this report) might be required.

Speech and hearing services must be provided commensurate with the planned lower age limit of 14 years. Many of these communication disabilities will have been detected and treated by that age, but not all. Others may surface for the first time because of peculiar working conditions. Pupils and supervisors must be alerted to their detection and the assistance available to correct them. Medical departments, even when traditionally part of a consortium member's organization, must probably be expanded, perhaps cooperatively by members, to deal with these difficulties.

Since EBCE is conceived as an alternative form of education for all children in the specified age group, in certain areas of the country special assistance for children who speak English with difficulty must be available as part of speech services.

Nursing and medical service: in addition to being restructured to provide speech and hearing services, employer medical departments must develop the capa-

bility of dealing with medical questions more prevalent among teenageers than regular employees, questions with which schools are increasingly having to deal: venereal disease, birth control, abortion, drug abuse.

Social work services are functions which traditionally overlap with the guidance and counseling services and special diagnostic/treatment services. Factors to be considered in providing the latter in EBCE have already been covered in Chapters II and IV of this report and need not be reviewed here.

Traditional Pupil Support Activities to be Replicated in EBCE

Social/Personal Development: EBCE considers career education to include social and personal, as well as cognitive, competence. Activities for teenagers which contribute to their careers defined in this broad way are now available almost solely by attendance at traditional schools. EBCE consortia must therefore demonstrate that they can provide efficient mechanisms for enabling pupils to know about and be able to take part voluntarily in:

Sports

Hobby and personal skill/interest groups

Social affairs

Cultural affairs

Many companies now sponsor sports leagues, camera clubs, singing groups, and similar organizations which are virtually run by participants, with the company providing some equipment, facilities, and perhaps reproduction services. Parallel arrangements can be made for pupils; in certain cases, older pupils can benefit by participation with regular employees. Specifications for both cases should be spelled out.

Properly conducted participation in such activities--as well as the opportunity inherent in EBCE to observe how adults appear and behave at work--can,

and must, replace for pupils the important informal guidance about dress, grooming, and general social behavior which pupils in traditional schools get from observation of and intermingling with peers and older pupils.

Because of the special uncertainties of adolescence, however, EBCE employers should consider designating regular employees who have the required temperatment, interest, and capability to serve as informal pupil advisers for questions and suggestions at a level not complex enough to require counseling.

Food service is provided by schools both as a convenience and as a means of providing economic support for disadvantaged children. EBCE employers must develop procedures for providing equivalent economic support to pupils as well as facilities. If members of a consortium do not provide a cafeteria for employees, it may be desirable to let certain pupils, under controlled conditions, obtain their midday meal on their own initiative (although with the economic subsidy mentioned above). High school age children now do so out of school hours; undue control in this area, originally undertaken for humanitarian reasons, may be one area of life where the dependency/rebellion syndrome can be attacked.

Transportation: unless the schedule of interchange of pupils between members of a consortium or unavailability of public transportation makes it unfeasible, teenagers can and should probably be expected to use public transportation (or personal cars when legal). In many cases a consortium will, however, have to provide transportation just as traditional schools now do.

The school library is a pupil support service which Project TALENT data (Flanagan, et al, 1962) showed to be correlated significantly with pupil achievement. Replication of a school library seems unfeasible for EBCE employers. Several considerations may make the inability to provide this support service a matter of negligible consequence:

1. The EBCE model for the educational process is radically different.
2. Project TALENT may have reflected socioeconomic factors, not ready

access to books per se.

3. Teenage pupils customarily use the public library and can continue to do so.

Potential Services Unique to EBCE

The nature of the EBCE experience may subject pupils to potential dangers for which protective services are required. These dangers include criminal (including sexual) exploitation and exploitation of their labor through excessive hours of work, unsafe working conditions, etc. In addition, although traditional schools do not appear to have been notably sensitive to this problem, teenagers are more and more experiencing violations of their civil rights. While most EBCE employers will probably be vigilant in their protection of pupils--and all employees--against at least the first two dangers, not all can be counted on to do so. Employers do not usually consider themselves to be concerned with civil rights violations. EBCE models should provide non-employer personnel, perhaps guidance counselors, who are charged with the responsibility of looking after pupil interests in these matters.

Civil rights violations occur especially in the area of due process. Pupils are especially vulnerable in the alleged violations of drug laws but traffic offenses and disturbances of the peace are also susceptible to civil rights inequities. Another civil rights area where pupils are particularly liable to have their rights overlooked is the lack of confidentiality of school records of their capabilities and achievements. Many critics of traditional schools feel that potential employers of these graduates have far too ready access to such data, encouraging them not to judge young people on what they can actually do but to misjudge them on the basis of improper or inappropriate analyses of test results. Since members of employers' organizations will be obtaining such data, guarding it from improper use by other members of an employers' organization will be very difficult and require careful, creative mechanisms.

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